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# Canadian Automotive Trade

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VOL. IV. No. 9

TORONTO, SEPTEMBER, 1922

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## Gill One-piece Piston Rings

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increase your accessory business

There is a size of Gill Rings to  
fit every make of internal com-  
bustion engine manufactured.

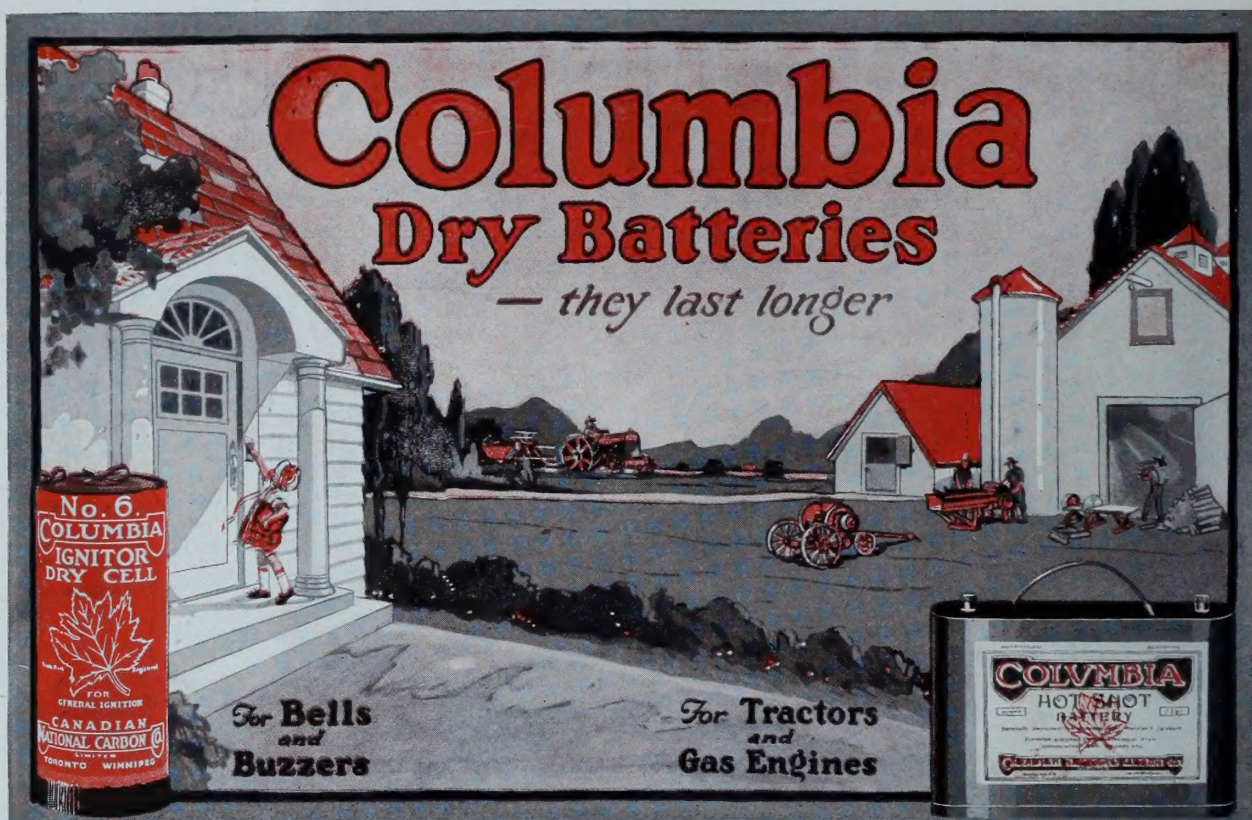
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Sole Distributors:  
CANADIAN GENERAL ELECTRIC COMPANY, Limited  
Branches Throughout Canada







## TWO NEW DISPLAY FEATURES FOR COLUMBIA DEALERS

**I**N LINE with the Columbia policy of keeping dealers supplied with new and attractive advertising material, this new window trim, 52 inches long and 36 inches high, lithographed on linen in eight colors and mounted on a collapsible wooden frame, is ready for immediate shipment to you. Simply ask your jobber's salesman to have one sent to you or request it direct from us. The bras-etch sign illustrated in the lower cut is very attractive for window, counter or show case. It is made of brass, deeply etched and embossed in colors—ask us to send you one.

CANADIAN NATIONAL CARBON CO., LIMITED  
MONTREAL TORONTO WINNIPEG







## Permanence

**T**HE power farming machinery business is not a "get-rich-quick" game. Its history is full of examples of men and firms that were wrecked by desire for quick, easy profits.

The concern that stays in business and grows is the concern that renders a needed service to its customers, and that is as true of dealers as it is of manufacturers.

The best service you can render to your customers is to sell them machines of satisfactory quality at the lowest prices consistent with quality. That policy is a sure business builder.

We believe that our eighty year record of success and growth proves beyond any doubt that Case Power Farming Machinery meets with the approval of intelligent farmers.

The Case line of Farm Tractors, Steam Engines, Steel Threshers, Silo Fillers, Baling Presses, Road Machinery, Grand Detour Plows and Disk Harrows, is now so well and favorably known that purchasers for Case machinery will be found on every dealer's territory.

The dealer who sells Case machinery renders a needed and much appreciated service to his community. The line will help establish his permanent success. Therefore, a contract to sell Case machinery is an asset to any dealer. Write today for information about the latest Case Dealer's Agreement.

### J. I. CASE THRESHING MACHINE COMPANY

(Established 1842)

Dept. X216

Racine

Wisconsin

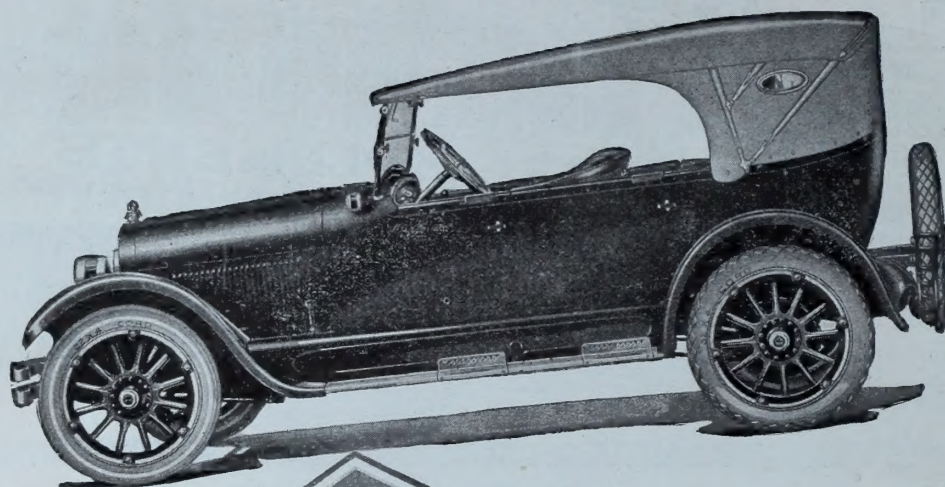
NOTE:—Our plows and harrows are NOT the Case plows and harrows made by the J. I. Case Plow Works Co.

Factory Branch: Toronto, Ontario.





MacLean's Magazine



for 1923

## *A New Model of a Famous Car*

The new McLaughlin-Buick is the finest car that has ever borne this famous name. The new six-cylinder five-passenger touring car brings new features of superiority

In the rear compartment, as in the front, the low luxurious seat invites relaxation and the passenger finds himself surrounded with every provision for his comfort.

More important still, the new McLaughlin-Buick is superior to the easiest-riding car of the day, due to its speed.

## A Wonderful New Line For McLaughlin-Buick Dealers!

Fifteen entirely new models at astonishing prices. What an opportunity McLaughlin-Buick dealers have this year! Occasionally there are openings in the McLaughlin-Buick dealer organization—why not have your name on file?

### McLAUGHLIN MOTOR CAR CO., LIMITED, OSHAWA, ONT.

Subsidiary of General Motors of Canada

Pioneer Builders of Valve-in-Head Motor Cars

Branches in all Principal Cities

M 218





Member Audit Bureau of Circulations

# Canadian Automotive Trade

Vol. 4

SEPTEMBER, 1922

No. 9

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### THE MACLEAN PUBLISHING COMPANY, LIMITED

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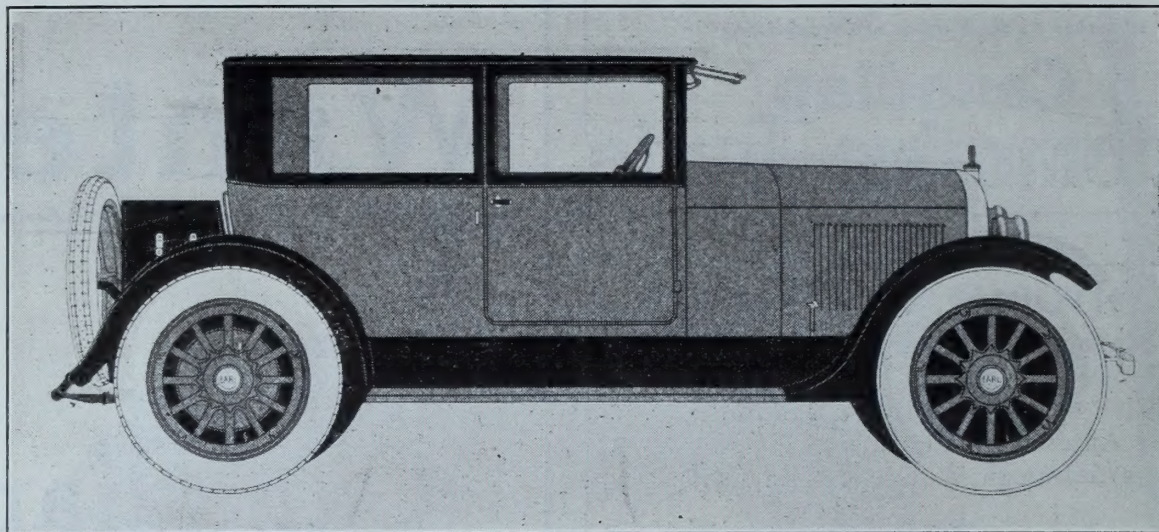
*for a  
well known*

# Piston Ring

APPLY  
BOX 100

Canadian  
Automotive Trade





COMPLETE EQUIPMENT INCLUDED IN CABRIOLE PRICE, \$2175—TRUNK, BUMPER, MOTOMETER, SUN VISOR, ETC.

## Two Big Markets for EARL *Cabriole*

*Distinction and equipment strike business and professional men as well as women*

JUDGED by retail sales, the Earl *Cabriole*—completely equipped for \$2175—is proving almost as popular among business and professional men who need a *personal utility car* as among women drivers, to whom its distinction and ease of handling appeal so strongly.

The fact is physicians, architects, realtors and business executives have learned that the seating capacity of a coupe is too limited to meet the necessities of many important business and social occasions.

Here the Earl *Cabriole* serves as *two cars in one*. It seats four big men in comfort, with plenty of leg room. Yet its compact, close-coupled design, its sweeping lines and contours, make it *look right* when the owner is driving alone. And driving the *Cabriole* for either man or woman, is so easy that it's no task at all.

*Cabriole* buyers appreciate, too, its *complete equipment*. No other closed car embodying so much comfort, beauty, convenience, economy and all-weather utility includes so many high-grade features and accessories for \$2175. Touring trunk, for instance, with cover, two suit cases and hat box; bumper, motometer; sun visor; one-piece windshield with wiper; Sparton horn and really complete equipment.

The *Cabriole* rounds out the great Earl line. If your territory is open, write or wire me for full information.

President and General Manager

EARL MOTOR SALES CORPORATION, LIMITED, Distributors

499 Yonge St.,  
Toronto

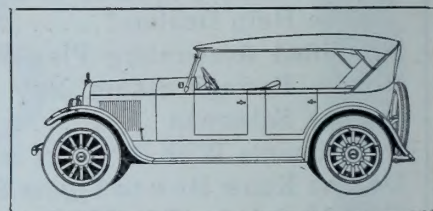
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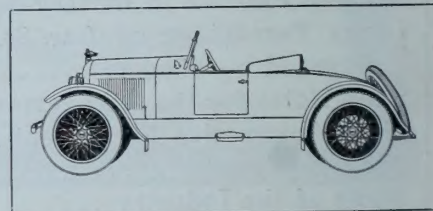


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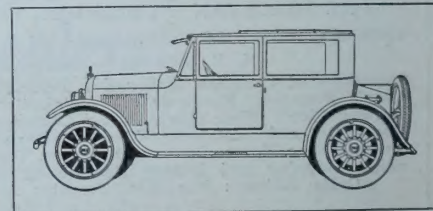
284-288 King St.  
W., Hamilton  
Phone Regent 695



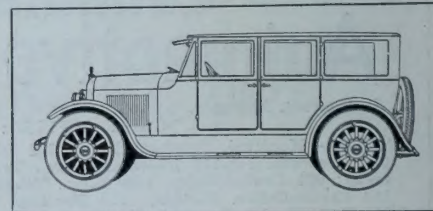
Touring Car, fully equipped, \$1695



Custom Roadster, special equipment, \$2250



Brougham, fully equipped, \$2750



Sedan, fully equipped, \$2750



# Canadian Automotive Trade

VOLUME 4

TORONTO, SEPTEMBER, 1922

NUMBER 9

## Cars At Canadian National Revealed Many Improvements

Seldom Have There Been so Many Changes and Refinements  
Revealed in New Season Models—Keen Interest in Exhibits and  
Many Sales Recorded—Some of the New Cars—New Automotive  
Building Proposed .

THE Canadian National Motor Show for 1922 held in conjunction with the Canadian National Exhibition was in every respect the most successful show in the history of the exhibition. The automotive show, originally an insignificant adjunct of the C. N. E., has grown to imposing dimensions and is an outstanding feature of interest and education to the thousands who throng the Fair grounds.

Seldom have there been so many improvements and refinements revealed in the new season models. Some of the

changes are fundamental while in other cases the improvements are superficial. While the number of new cars were few those that were shown for the first time attracted considerable attention.

The crying need of the automotive manufacturers and jobbers at the exhibition has been more space and to meet this need the directors of the fair set apart about 40,000 square feet of the new Coliseum for the truck and automotive equipment exhibits, and gave the transportation building over entirely to passenger car exhibits. This ar-

rangement caused the automotive exhibits to be divided up, passenger cars at the west entrance to the grounds and trucks and accessories at the east entrance. Under ordinary circumstances this might have reacted unfavorably on the automotive show as a whole, but owing to the fact that the Coliseum was opened for the first time and that it contained other special exhibits and live stock judging, the crowds flocked there in thousands each day, and as the Transportation building is in a dominant position near the main entrance,



A section of the truck exhibit in the Coliseum at the Exhibition.



the arrangement turned out eminently satisfactory for all concerned.

The automotive industries received more attention than during any previous exhibition. More space was available but even with the added space every inch was taken up and some applications had to be refused. As the result of the automobile, truck and accessory manufacturers and jobbers requesting that the exhibits of the whole industry be housed under one roof, the directors of the exhibition are considering the advisability of erecting another transportation building, a duplicate of the present one, and immediately behind it to the west. The cost would be approximately \$300,000 and financed on the same basis as the new Pure Food Building, the directors guaranteeing maintenance, sinking fund and interest charges for so many years. To offset this and to back up the directors the exhibitors would sign up to exhibit so many years, taking so much floor space at so much per square foot. The automobile and truck manufacturers are favorably disposed toward the project.

#### Keen Interest in Exhibits

While it is a hard job to analyze a crowd, to pick out the prospective buyers from those merely interested as spectators, it is safe to say that car and truck sales in the immediate future will be much stimulated by the National Motor Show. The volume of business done will depend to a large extent on the manner in which the prospects, whose names were obtained at the show, are followed up by the manufacturers and dealers. The show is merely the prologue to the play. The play has yet to be acted; whether there will be a convincing performance and a satisfactory climax will depend on the actors. The audience is waiting and in a receptive mood. The play is for the actors.

The general appearance of the automobile exhibits was effective. As in past years the cars were arranged around the four walls and in a hollow square in the centre. There was a noticeable brightening up in the color schemes of the exhibits. It is gratifying to see the tendency to get away from the uniform sombre appearance. It was significant that the crowds hovered longest near the gay colored models.

The salesmen at the various exhibits were very active and approached visitors as they drew near, in most cases. If the visitor evinced any interest at all he was invariably invited to step in and "try his hand" at the wheel. The old days, when the cars were guarded with a jealous eye and the "hands off" sign much in evidence, have gone and are succeeded by a saner and more salesmanlike era. Cars are not now just "exhibits" but real merchandise which the prospect can inspect, study, and buy if he is satisfied. Indeed from all sides come reports of sales being closed right at the show.

Among the new cars shown none at-

tracted so much attention as the Star, Durant's four-cylinder car which will sell in Canada for something over \$600. This was the first showing in Canada. It has a well proportioned streamline body. There are four passenger and two commercial cars in the series. The engine is a Continental Red Seal. Timken rear axle and Timken bearings front and rear are used. The transmission is a selective sliding gear with three speeds forward and reserve. The clutch is a single plate disc, springs are half-elliptic, underslung; the gasoline feed is a Stewart vacuum with supply tank at the rear. Other features are, auto-lite generator starting motor, equiter and coil; Warner steering gear, semi-irreversible worm and gear type; Tillotson carburetor; force feed oiling system. Complete lamp equipment, headlight lenses, tail light, tire carrier and license holder, and in the closed models, interior light, are standard equipment. Tires are 30 x 3½ all around; wheelbase, 102 inches.

A newcomer at the exhibition was the Detroit Steamer, which is to be manufactured by the Detroit Steam Motors Corp., Windsor, Ont. This car was driven from Detroit to the show. It is finished in battleship grey and has pleasing body lines. The Detroit Steamer has a wheelbase of 115 inches and weighs approximately 2,700 lbs. The two-cylinder engine is directly connected to the rear axle, thus doing away with transmission, drive shaft and universal joint. It develops the gas car equivalent of 45-50 h.p. The car has electric lighting, with a generator driven direct from rear axle gears, and performs equally well on kerosene low-grade gasoline or distillate.

The Wells Sante Claire is another of the new cars at the Exhibition. This car has been in production at the American plant for over a year, but it has not heretofore been placed on the Canadian market. It is an eight-cylinder car. Among its features are overhead camshafts mounted on each block and operating valves by direct contact, instead of through rocker arms. Lubrication is of the full-force feed type. The clutch is the multidisc type. An interesting development is the interposition of an automatic clutch between the fan and fan drive.

The appearance of the Glen, a three-cylinder car, caused considerable interest. It was designed by a Toronto engineer. The engine is an air-cooled block of three cylinders cast in a straight line and having overhead valves. Because of the shortness of the crankshaft a centre main bearing is not necessary, and the shaft floats on two large ball bearings. There is a squareness and lack of curve to the body lines which caused much comment.

The Jewett, a product of the Paige Detroit organization, made its official debut at the exhibition and is one of the several "light sixes" which have been announced recently. The engine is a standard L-head type, having a

bore and stroke of 4¼ x 5 inches, and developing 50 brake horsepower. A combination force and splash system of lubrication is used, the main bearings being taken care of by direct leads from the oil pump. The clutch is of the plate type, while the transmission follows conventional design. This car also uses 31 x 4 tires.

The Parker car is also a Canadian car appearing at the National Show for the first time. Its motor is a Continental. The chassis frame is marked by the depth of the side members, and the coach work on all models uses plywood as the panel material.

The light car, known as the A. C., shown by Vauxhall, always drew a crowd of interested spectators. The car is an innovation to the Canadian market. It is a very light model and is designed for service where a larger car is uneconomical.

Other new models were shown by Maxwell, Franklin, Willys-Knight, Stanley, Liberty, Cadillac, Hudson, Essex, Dodge, Oldsmobile, Gray-Dort, and some others, a description of which will be given in a future issue of Automotive Trade. Elsewhere in this issue some of the 1923 models are described in detail.

#### Trucks

The truck exhibits in the new Coliseum made a very imposing appearance. Heavy duty and light delivery cars were shown in great variety. Practically every well known truck manufacturers was represented with a full line. The truck exhibit to the mechanically inclined was even more interesting than the passenger car exhibits, for a very large proportion of the displays had chassis in which everything from the motor to the rear axle assembly was open to view.

There were a number of newcomers, a full description of which will be given in subsequent issues of Automotive Trade.

Large crowds thronged the truck exhibits and salesmen report a number of sales made and prospects lined up.

#### Accessories Drew Large Crowds

The accessory exhibits in the Coliseum, where a real effort was made to attract the crowds, held thousands of visitors interested every day of the two weeks. Every booth was decorated in gay colors and most of them had something moving in a more or less spectacular manner. While there was not much that was strikingly new in the accessory department it was by far the most interesting and comprehensive exhibit ever held at the exhibition.

A striking exhibit from a dealer standpoint was the Ford service equipment housed in a tent alongside the Coliseum among the Fordson exhibits. The kind of equipment necessary to service Ford cars properly was displayed. Dealers from every part of Ontario spent a large part of their time here and no

(Continued on page 36)



# Gardner Announces Two New Closed Models

**P**ATTERNED along the same lines as the Gardner touring model two new closed jobs, a five-passenger sedan and a business coupe, has just been announced by the Gardner Motor Co.

The business coupe is a practical car for business use—fitted for salesmen, business and professional men. It is equipped with full coupe body. The wide, roomy seat is upholstered in straight-grain leather, and plenty of extra leg room has been provided. Just back of the seat is a convenient compartment which affords ample carrying space for suit cases, packages, tools, extra tubes, etc. The door windows are raised and lowered with automatic rotary-type noiseless lifters.

The coupe has special roof construction which consists of cross bows covered with fine-mesh wire screen and heavy duck, padded to give a smooth appearance and to prevent sagging. The car has an 18-in. steering wheel with non-slip, hard rubber rim and aluminum spider. The coupe has as regular equipment, cowl ventilator, permanent sun visor and rain-proof windshield. The lower glass of the windshield is in a fixed position and has a rubber weather strip across the top edge. The upper pane, overlapping the lower glass, comes in contact with this rubber strip so that rain cannot force its way into the inside of the car.

The sedan has smart, straight lines which are augmented by the body finish, which is dark blue with black enamel fenders and nickel-plated, satin-finish hardware inside the body. It is upholstered with heavy, 20-oz. all-wool body cloth supported by curled hair padding in the cushions and backs, and deep spiral springs. Easy-riding qualities are assured by the use of long underslung

vanadium steel springs. The springs are set parallel with the body, giving a straight up-and-down action.

A rain-proof windshield and permanent sun visor are features of the sedan. The upper panel of the windshield overlaps the lower glass and is sealed with a rubber weather-strip making it watertight. The lower panel is stationary and sealed to prevent leakage. A forward-tilting cowl ventilator scoops up the air and passes a cool draft around the feet of those in the front seat. The windows are fitted with silk shades mounted on spring rollers. The hardware is of

beautiful design—satin finished and strong in construction. A heater for winter driving is provided. The four-door design provides easy entrance to both front and rear seats. The doors are fitted with automatic rotary-type noiseless lifters. All doors lock from the inside, except the right front which locks with a Yale lock from the outside. Artillery wood wheels with 32 x 4 anti-skid cord tires and heavy tourist inner tubes are standard equipment of both the coupe and sedan. The chassis and mechanical specifications are the same as those of the open models.

## Stutz Adds New Sports Roadster

**T**HE Stutz Motor Car Company have announced an addition to the line of open cars in a new model, the Speedway Roadster, a two-passenger de luxe sport car. The cars are furnished in a variety of shades with upholstery to match.

One of the features of the Speedway Roadster is the circular trunk which fits into a specially designed well in the rear deck of the car. This is of bass-wood covered with patent leather, duck bound at the sides and ends with heavy genuine leather and fitted with nickel trimmings. Inside it is lined with cretonne and holds two large suitcases.

In addition to the distinctive barrel-type headlamps and spotlight, which are standard equipment on all Stutz models, the Speedway Roadster is provided with two small cowl lights of a design that correspond with that of the headlamps, and a parking lamp, mounted on the left rear fender.

Two extra wheels, equipped with cord tires, are affixed conveniently at the rear. They are furnished with weather-proof tire covers of moleskin.

Other equipment includes the double bar bumper; plate glass side-windshields; adjustable cowl ventilator; automatic windshield cleaner; rear vision mirror, and individual scuff and step plates.

### MONTREAL CLOSED CAR SALON

**A**NNOUNCEMENT has been made by Adelstau Levesque, secretary of the Montreal Automobile Trade Association, that the directors of that association have decided to hold a closed car salon, Sept. 30 to Oct. 7, 1922. Applications for space are now being received and it is reported applications are coming in rapidly. Only closed cars will be shown. There will be no accessory exhibits.



The Gardner Business Coupe.



## New Custom Roadster Announced by Earl

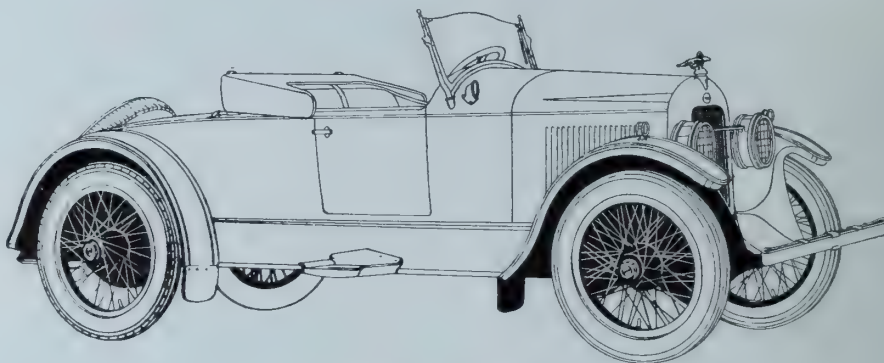
**C**ONTRARY to usual practice the new Earl custom roadster just announced by Earl Motors costs more than the touring car built by the same concern. Three choices in the matter of paint and upholstery are given.

The choice of color combinations are horizon blue with vivid blue and black striping, mustard with blue striping and grey with blue striping and black wire or disc wheels. Seat cushions, door and body panels are all in leather harmonizing with the body paint. Radiator, lamps, the marine-type ventilators on the cowl, windshield frame and standards and like fittings are in polished nickel. The individual steps are of polished aluminum with rubber inserts; the instrument board and steering wheel are black walnut. An interesting feature is the left-hand ignition and dimmer switch, which makes night driving easier on the main-travelled roads. Five wire or disc wheels with cord tires are regular equipment.

The engine used is the long-stroke

Earl motor. Inside the frame the chassis is the standard Earl product. Its overall length is 14 feet, less one inch. The driving compartment is 56 inches long. The width of the seat is 42 inches, the depth is 18½ inches above the floor boards. From seat cushion to steering

wheel is 8 inches, from back cushion 15 inches. Side rails are 10 inches above seat. Luggage space at back—20 cubic feet—gives ample room for golf bags and week-end kits, accessible by tilting the back of seat forward, making compartment dust and waterproof.



Earl Custom Roadster.

## New Cadillac Victoria Model

**T**HE Cadillac Motor Car Co. has announced a new type 61 Victoria model. The appearance of the new Victoria has been greatly enhanced by a change in dimensions which gives the effect of greater length and less height.

The interior is considerably enlarged to provide more roominess for all occupants. All seats have been lengthened. The driver's seat is placed in such a way

that it is now directly behind the steering wheel.

The auxiliary folding seat, which is beside the driver's seat, is so arranged that it gives added leg room for the person occupying it. The rear seat, which accommodates two persons with ease, has been both lengthened and widened.

The interior appointments have been

refined by the use of new and distinctive pull-to handles on the doors and other fittings, which are beautifully in keeping with the atmosphere of the car.

The features of the former Victoria model have been retained in the improved model. They are as follows: rear corner lamps, parcel compartment directly behind the driver's seat, folding foot rest, cigar lighter, leather paneled sun visor, and rear deck compartment which will accommodate a small trunk, several bags and golf clubs or fishing kit.



New Cadillac Victoria Body.

## Maxwell Cuts Prices on Closed Models

**P**RICES on the Maxwell sedan and coupe have been reduced. The sedan has been reduced from \$1,960 in Canada, to \$1,875, while the coupe has been reduced from \$1,580 to \$1,725. No change has been made in the open models.

In making the announcement, President William Robert Wilson states that the preference shown by the public for closed models has led to the decision to increase production on the sedan and coupe.

## HAYES WHEEL GETS BIG DURANT CONTRACT

**T**HE HAYES Wheel Company has recently completed negotiations with the Durant Motors Company of New York, Michigan, Indiana, California and Canada, Star Motor Company and forty-three subsidiaries to supply their entire requirements of wheels.



# The Dealer's Responsibility In Building a Better Automotive Industry

Responsibility Begins With the Realization That the Representation of a Reputable Car is a Personal Trust—Factors Governing the Choice of a Car to Sell—Success Measured by Efficiency

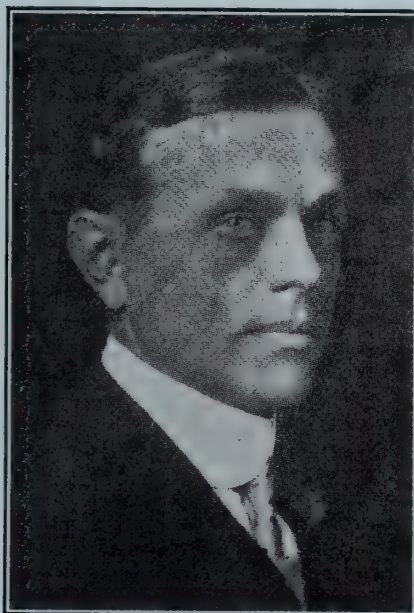
By NORVAL A. HAWKINS,  
Advisory Staff General Motors Corp.

**I**N THE beginning of the automotive industry there were few if any really responsible dealers. The first automobiles were sold for cash by the manufacturers because nearly all the territorial agents of that early day had little or no basis for credit, and the producing companies themselves were hardly strong enough financially to take any chances on bad debts from unrated dealers. Only in comparatively recent years have automobile dealers become real merchants, with ratings of business ability and responsibility.

It is to the credit of the industry now that in thousands of towns and cities in Canada and the United States the establishments of the leading automobile representatives rank among the finest business structures of the community. In many places a local automotive merchant has erected a building that is bigger, better, and in every way more impressive than even the public edifices.

The transition from the irresponsible, rather sporty automobile "agents" of ten or fifteen years ago to the established, reputable automotive merchants of to-day has been as remarkable as the improvement in the automobile itself. The unrated bicycle shop proprietor of 1900 has developed into, or has been succeeded by, a substantial business man who is generally recognized as a leading and progressive citizen. Automobile dealers nowadays have the reputation of being among the best "hustlers" in the town. Typical successful automotive merchants personify in their superior ability, energy, and character the highest tribute to the great industry they represent.

The representation of any really good automobile should be a proud responsibility on the part of the dealer who holds the contract. The manufacturer places in the dealer's charge not only the territorial quota of cars, but their good name as well. Engineering, inventive, and production genius have combined with finest artistry and craftsmanship to create and build automobiles in which the manufacturers justly take pride. They are dependable and carry guarantees worthy of the



NORVAL A. HAWKINS,  
General Motors Corporation.

names they bear. The dealer who gets such a car for sale and service should feel he has received a trust carrying with it serious business responsibility.

Only the true representatives of cars, trucks and tractors that are honorably built can hope to succeed in the automotive industry now and in the future. Buyers know car values and after-service to-day. To-morrow they will know these things even better. The greatest of all automobile values is satisfaction to the car owner. The successful automobile merchant must sell car satisfaction and economical transportation to begin with, and assure their continuance by rendering satisfactory after-service. More automobiles are sold nowadays through the service station than on tiled floors or across fancy desks of the show-room.

## Where Dealer's Responsibility Begins

The dealer's responsibility for building a better automotive industry should begin with the realization that the rep-

resentation of a reputable car is a personal responsibility. It is a trust imposed by acceptance of a dealership; and the responsibility grows with successive years of representation.

Responsibilities lightly undertaken are apt to be lightly felt, evaded, or discarded. So it has been a too common practice for many dealers to be "off with the old," and "on with a new" nearly every season. Such irresponsibility cannot build a foundation for a permanent success in the automotive industry of the future. Tramp dealers should be allowed to go out of the business. Reputable manufacturers had better be without any representation in certain places than to execute contracts with undesirable dealers.

The dealer who undertakes the sale and servicing of a car for which he feels personally responsible will not risk his capital and reputation without giving the greatest care to making his choice of the right automobile to represent. That is his first responsibility—to himself and to his future customers.

## What Factors Should Govern the Dealer's Choice of a Car to Sell?

The right product is important, of course. But not all-important. It is even more essential that the right company shall be behind the right product.

The automotive merchant who enters the industry with the expectation of establishing a business in which he will continue for many years should be most interested in the permanency of the manufacturer he is to represent. Otherwise the basis of his own business may be wiped out and a fresh start made on a new foundation.

Permanency in the automotive industry depends primarily on leadership. The march of progress in this youngest of great businesses has been swift in the past, and the present pace is ever quickened by new developments of invention, design, and manufacturing. Laggards are bound to lose. Only leadership can win. A dealer can make no greater mistake in selecting a car to represent than to neglect consideration of the vital factor—progressiveness,



plus financial strength. A million dollars capital doesn't go far to-day in this industry, unless all the other factors are nearly correct.

But permanent success in the automotive business depends on more than leadership. All leaders are not safe to follow. Permanence demands staying qualities—among which financial strength is perhaps of first importance. It is rash to enlist in a fighting sales force without looking into the commissariat. Sometimes it is necessary in the automotive industry to feed a great deal of money into an unprofitable period of business. The wise dealer will study manufacturers' balance sheets most critically when making up his mind on the car he wants to represent permanently.

He will be equally painstaking in learning what are the productive facilities of the manufacturer under consideration. The automobile may have been conceived by a genius leader in engineering, and refined by a leading artist in design—but has the manufacturer the plant capacity, the tools, the workmen to make it in such quantities that it can be sold competitively at a fair profit?

The dealer's analysis is not yet complete; though he may be satisfied that the manufacturer can assure him permanence; through leadership, financial strength, and ample productive facilities. The next questions he should ask are with regard to personnel and policies. Permanence, Personnel and Policies are the three big "P's" that make the big "Q's" he must answer. The dealer who does not mind his "P's" and "Q's" to begin with can never learn the "A-B-C's" of success in this industry.

What sort of men are building the cars, trucks, or tractors you contemplate selling, Mr. Dealer? Are they broad-gauge men? Are they honest? Are they men of courage? Have they brains, and do they work hard? These are only a few of the important questions the automotive merchant will ask when he is selecting a line to represent.

He should follow with another query that involves both himself and the personnel of the manufacturing organization. Are they men with whom he can work in friendliness and co-operation? Are they his sort of people? Will he suit them, personally?

Assuming that the prospective dealer is satisfied with the answer to the problem of personnel—there remains the third big "Q"—about the manufacturer's policies.

Is it the policy to produce a "quality" or a "quantity" car? What class of customers will the product be built to satisfy? Are the manufacturers going to be progressive and aggressive factors in this highly competitive field, or will they prefer a more conservative policy of limited activity and scope?

The dealer's responsibility for building a better automotive industry will not be fully met until he comprehends and lives up to the meaning of "I rep-

resent." Represent means to "stand for." No more can stand for something he does not know all about.

## Where Are You As a Salesman?

Speaking about automobile salesmen recently, Mr. Hawkins, the writer of this article, had this to say:

"In the automobile business we have been inclined to boast about our progressiveness. Frequently we hear compliments regarding the automobile salesman. He is generally regarded as a superior type of salesman. I am proud to say that there are in the automobile industry some of the very finest salesmen in the world. But I am frank to admit that some of the very worst salesmen I ever have met bore the cards of automobile dealers. Between the two extremes there is an average that the industry has no especial reason to be proud of.

"Not so long ago an analyst made a trip along Automobile Row. His experiences were interesting, and rather humiliating for a sales executive to hear.

"1—The salesman of the first dealer called upon was too busy shifting a car into place in the showroom to give any more attention than a nod to the supposed prospect. The caller stood around for a few minutes and then walked out.

"2—The salesman who greeted the visitor at the second dealer's showroom was very cordial. It appeared that the car he was selling had been an 'oil-pumper' in previous years, and about the first thing this salesman explained was that the new model was no longer an 'oil-pumper,' and that all its former faults had been taken out.

"3—The third salesman was of a noisy type. He started out by declaring that his car had the most powerful motor in the world, and that it was a good car now because the management had been shaken up.

"4—The fourth salesman, at another dealer's was very proud of the car he represented. This pride quickly developed into 'knocks' against competing cars that were casually mentioned by the prospect.

"5—The fifth salesman was a fast worker. He started in immediately to 'qualify' his prospect. Finding that the supposed buyer was not thinking of purchasing a car at once the salesman lost all interest in him.

"Salesmen like these will never build an automotive industry."

"Do as you think I would do, if I were there," was his general direction.

That first sales representative was a slave to his master. He did not have the power to choose whom and what he represented. But he realized his responsibility—that he "stood for," "in the place of," the man who sent him out.

The automotive merchant of to-day is not a slavish representative of the manufacturer. Our industry is a great free dominion, where individual liberty imposes personal responsibility for the things and men you represent. Your right to choose the car you will sell and service carries with it the obligation to make the right choice.

### The "Game" Has Become a Business

There is a thrill in being a part of the automotive industry. No other vocation is so fascinating—so gripping. Once it takes hold of a man's interest, he never is proof against its spell, nor wishes to be. The automotive industry has been a field of adventure, a veritable El Dorado. But the Klondyke rush is over. The "game" has become a "business," and it demands business men.

The development of the automobile to its present stage of approach to perfection in only twenty-five years is the most wonderful miracle of industrial history. That great record, however, marks accomplishments chiefly in production. Distribution has lagged far behind manufacturing, in efficiency. Service, long an unknown art, has just begun to be studied. Only a very few automotive merchants have mastered it, in its actual application and operation.

### Success Measured by Efficiency

It is the dealer's responsibility, after choosing the car he will represent, to master every part of that big job; so that he may be a true representative—not a misrepresentative—of the product and its manufacturer. His initial responsibility for making an intelligent, painstaking choice is just an introduction to the continuing responsibility for growing bigger and better in his growing job. He must keep ahead of his responsibilities. He must lead his business. It will not push him into undeserved success. The best workers will be the biggest winners.

Success will be measured by efficiency. Efficiency is responsibility met. The degree to which the automotive merchant meets his responsibility to give his manufacturer and customers sales and service satisfaction will determine his reward.

Self-interest is the most impelling business motive. Automobile dealers are not altruists. They look out for number ONE first, like all the rest of us. They will accept their responsibilities for building a better automotive industry for just one reason—

Because it will pay! Therefore YOU, Mr. Dealer, should be vitally interested in the profits of more responsibility as an automotive representative.

"I cannot go myself. Therefore I send you." That is what the first sales representative was told, as he started out.



# How One Salesman Would Handle Used Cars

This Story is Written by a Man With Considerable Experience as Salesman for a Large Car Manufacturer—In His Capacity as District Representative He Has Had Unusual Opportunities of Studying This Problem From the Dealer's Standpoint

**T**HE used car problem in the automotive industry to-day is one of the biggest problems and one which has been left to the dealer by the manufacturer for solution. The problem has become more acute in the past two years and will continue to be a tremendous problem until the manufacturer takes on his own shoulders a portion of the burden. Until the past three years the automobile dealer was able to sell cars to people who had never owned them before but to-day about one car sale in twenty is a clean sale, the majority of sales mean the taking of a used car. The dealer selling a car for from \$1,500 to \$2,500 is able to get by on the deal if he takes a car that can be re-sold under \$1,000. A car that is taken in on a deal at more than \$1,000 practically always proves a loss for the dealer. A man who can afford to spend \$1,200 on a car prefers to buy a new one in \$1,200 class rather than pay the same money for a car of the \$2,000 or \$3,000 class even though it might be in excellent shape.

It is a sad fact that there are few real merchants in the automobile business compared to other fields of business activity. In the past most dealers started as garage men and took on a car agency as a side line. Nowadays the man who is handling a car finds himself up against a proposition of either being a car salesman or a mechanic. He can't handle both. Until we have real merchandisers there will always be trouble with used cars.

Too many dealers to-day are trying to handle the used car problem by letting the cars sell themselves. They take them in on deals and neglect to put them in first-class shape for resale and do not try to sell them immediately after getting them in. A good plan to follow and one which has been used successfully, is to repair the car immediately when it gets in; see that the tires are in good shape, and that the car is in running condition at all times for demonstration. Dealers too often neglect to keep a used car file and to follow their used car prospects as they do new car prospects. It is as vital that the used car file be

right up to the minute as the new car file.

## Should Have Trained Used Car Salesmen

The used car sales force must be of sufficient strength and experience to look after this most difficult department of the business. Salesmen must be specially trained. Dealers on the whole do not approach this problem with anything like the enthusiasm or system which characterize their efforts in selling new cars. For example we know of a dealer doing a large business whose sales force consists of about seventeen new car salesmen and but five salesmen handling the used cars taken in by these seventeen. This force is too unbalanced to get results. Great care is taken in selecting and canvassing new car prospects and the very best salesmen in the force are used, but the used cars are handled in a half-hearted manner and the best salesmen are not always used.

## Plan Used by a Dealer

A very good plan for disposing of used cars is used by an Ontario dealer.

Every old car taken in is put in first-class running order at once, the tires are repaired and the car is painted if necessary. In other words, it is put into such shape that it could be immediately run to an owner's house and give satisfactory service. A thirty-day guarantee is given on every used car taken from his place. The plan also calls for an envelope attached to the car giving the whole history of the car and the previous owner's name. It also contains a bill of repairs for parts and service that were required to put the car in running shape; thus the purchaser of the used car knows how the car was run while in the former owner's hands and knows exactly what was done to the car before it was sold to him. This together with the guarantee gives the man less chance of being cheated on his purchase.

Plans that have been tried for co-operation amongst dealers in certain localities handling used cars have not proven effective. If dealers would name among themselves a valuator who

would place a price on the used car at which it was to be taken in and would then stick by their contract the problem would present less difficulties to the dealers, but in every case where this has been tried two or three of the dealers have attempted to put one over on their associates with the result that the whole thing has fallen through.

## Have Used Car Valuator In Own Force

Within the dealer's organization it has worked out to advantage to have one man who places a value on the car to be taken in on a deal and no one in the sales organization is permitted to change this valuation. If the salesman shows that he is unable to sell a new car and take in the old one at the figure set they must let the sale fall through.

Most retail automobile salesmen to-day are working on a commission basis; several dealers have found it advantageous to make the salesman responsible for the cars which he himself took in on deals. It works out something like this: The salesman gets 7 per cent. on a car, for instance, which he sells on a clean deal taking nothing in. He might be given 5 per cent. on a car which he sold and took in a used car in the deal. He might be given 6 per cent. then for selling the used car. The dealer makes the salesman responsible for the used car he has taken in and sometimes even goes to the extent of making him pay out his own money for the used car and takes the salesman's note for it. Then when the salesman sells the used car he simply pays the note and receives his commission for the sale. This does away with the attitude of the salesman that he must sell his employer on a used car at a certain figure and then a few days later come in and tell the dealer that he is unable to sell the car at that moment and try to sell the dealer on taking less for this particular used car. Where the responsibility rests on the salesman it has been found that he gets out and works that much harder to get rid of the cars he takes in on deals.

The manufacturer has not as yet done  
(Continued on Page 45)



# Canadian Automotive Trade

MEMBER AUDIT BUREAU OF CIRCULATIONS,

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## The National Motor Show

**T**HE PHENOMENAL interest shown by the public at the Canadian National Motor Show is an augury of good business for the coming season. The public saw a much improved car both mechanically and in comfort and appearance. The cars show that the manufacturer is doing all he can to please the public and to build a car that will sell and stay sold. More equipment has been added, designs have been improved, and greater attention paid to accessibility and road economy.

Price may be a big factor in the sale of cars in the immediate future. There have been numerous cuts and the air is full of rumors of a price war, although these latter have been denied in certain quarters.

Certain it is that car owners are doing more shopping around for price concessions than in recent seasons and there is a danger of this condition reacting unfavorably on sales. Speaking in this connection, Motor World, an American publication, says:

"The automobile trade cannot expect to overcome in a minute the sales resistance that is based on price demand, but they must overcome it some time if business is to be done with any pleasure and profit. The only way retailers in the automotive trade can combat the price demand is to advertise their merchandise as quality merchandise and their establishments as establishments which stand back of what they sell, and are in a position to give buyers service as well as goods."

The dealer taking advantage of the interest created at the show and who takes pains to advertise the quality of his goods and more particularly the quality of his service will always get a big share of the sales in his district irrespective of any price agitation.

## Keeping Mailing Lists Up-to-Date

**I**N THIS issue there appears an article on the use of letters for building up sales and bringing the dealer's service to the attention of car owners in his territory. Emphasis is placed on the necessity of using only mailing lists that are up-to-date.

Mailing lists should be gone over from time to time, once a year is not too often, to eliminate the dead names and to add the names of new prospects.

Such a scrutinizing would effect a considerable saving in

money, time and labor, and make success of a mailing campaign more certain. Dealers should watch carefully the returns from any such campaign and make changes accordingly.

## Pictures in Advertising

**D**EALERS who are selling cars, trucks and tractors, often overlook in their advertising the interest-creating power of well chosen pictures. Attractive pictures are an important influence on the prospective buyer and should be used in every advertisement where possible.

It is said it took Sir Walter Scott usually about eight pages to paint word pictures of his heroines. The movie producer does it in one close-up.

Dealers might take a hint from this and cut down if necessary some of the type in their advertisements and include pictures of everything that can be pictured. This kind of advertisement not only saves space, but it attracts the reader at once, saves his time and helps him to make up his mind to buy.

## Utility of the Automobile

**T**HE AUTOMOBILE at one time was referred to as a "pleasure car." Occasionally even to-day we hear it spoken of as such in the press and legislature. But the figures recently compiled by the Department of Public Highways for Ontario establishes beyond all doubt the utility of the automobile. Classifying all owners by occupation figures show that out of a total of 181,978 passenger cars registered last year, over one-third or exactly 64,045 were owned by farmers. Tradesmen constituted the second largest owning class with 23,680 cars to their credit, with merchants in third place owning 16,700 cars. Other figures showing the utility of the motor car in diverse occupations are: Commercial travellers, 5,311; doctors, 3,934; real estate agents, 1,098; contractors, 2,961; drovers, 651. Any idea that the motor car is a source of class distinction is shattered by the figures showing laborers as owners of 4,059 cars.

## The Government's Conversion Scheme

**T**HE ATTENTION of the holders of the five and a half per cent. war loan bonds maturing December 1, 1922, is directed to the offer of the Minister of Finance to renew the loan on favorable terms. The last Canadian loan was placed in New York at a satisfactory price. The Minister is making his present financial operation entirely a domestic one by offering to exchange the maturing bonds for new bonds bearing the same rate of interest, running for either five years or ten years as the bondholder may prefer. A further inducement to the investor is that he receives a bonus of one month's interest. The terms offered are decidedly favorable to the investor and it is probable that a large part of the maturing loan will be renewed. Arrangements for the exchange of the bonds can be made at any branch of the chartered banks. Holders who do not wish to reinvest will be paid in cash on the 1st December.

The investor, by giving notice to the manager of any one of the branches of a chartered bank, can arrange to get new bonds bearing the same rate of interest, the highest possible security and a liberal rate of interest.





## Taking Advantage of a Corner Lot

City Motors, Kitchener's Newest Garage, is Built on a Corner and is One of the Outstanding Features of the Principal Street—Modern Lighting Effects and "Ask 'Em to Buy" Accessory Department Are Features

**I**N the automotive business, perhaps more so than in any other line of merchandising, location is of considerable importance. It is an advantage for a garage to be in a position to flag motorists while they are in action. As it is not practical to place a man on the highway with a red flag in his hand, the dealer must adopt other tactics, and tactics that will attract as much attention and to more purpose.

The sure way of doing this is by selecting a prominent location and the best location for any garage is a corner.

A corner is a natural advertisement. The garage situated on one has a strategic advantage. The dealer thus located is in a position to make his display talk to motorists half a block away and make his garage the most prominent feature on the street.

I. G. Neuber and Roy Kleinschmidt, proprietors of City Motors—Kitchener's newest garage, and one of the finest in the province of Ontario—have realized the value of a corner. Situated on the corner of King and Eby Streets, 93 ft. frontage on King and 102 ft. on Eby, City Motors is easily the most prominent and striking feature for several blocks, if not on the entire King Street, the main thoroughfare. Not only is King Street the principal shopping street in Kitchener, it is also part of the main highway between Kitchener and Hamilton and a direct route for tourists.

The garage is one storey with basement. The ground floor is divided into three main parts; viz., the showroom and offices, automotive equipment department

and service room. The basement will be used for the heating apparatus, air generating plant and parts storage.

The building is constructed of black rug brick, steel and concrete and is entirely fireproof. This building, large as it is, is but the nucleus of a large automotive establishment with two or three storeys to be built as the industry expands and Kitchener's automobile population develops. A shaft for a large

elevator, capable of allowing the largest cars to turn in it easily, has been provided.

The entire front of the building is used by the showroom and accessory department, and is practically all glass. These departments take up 40 ft. of the depth of the building, while the service room occupying the whole width uses the remaining 62 ft. of the depth.

The remarkable feature of the build-



The Accessory Department is One of the Outstanding Features of the City Motors.



ing is the manner in which natural light has been provided. At no time during the day is artificial light required. The rear end of the garage, which forms one of the walls of the service room, is composed of glass, through this wall of glass, and through large windows on two other sides, streams enough light to see in

freely and there is no danger of collision even though cars are moving both ways at the same time.

An overhead track encircles the service room so that cars can be operated upon almost anywhere in the room. Other equipment includes a bench lathe press, portable electric grinders and



The service department is well provided with windows through which stream an unusual abundance of natural light.

every corner of the service room, and in most parts to see while working under a car.

In every part of the building the same care in providing ample light is noticeable.

A striking feature of the garage is the automotive equipment department. It occupies about half of the front and is a real "ask 'em to buy" department. It is situated in the gasoline run-way and all motorists stopping for gas or oil can't fail to notice it. The department is so constructed and the lighting so adjusted that the entire accessory display is seen from the street. Two large windows in the run-way carry a nicely arranged display. This display is changed frequently.

The lighting in the showroom is accomplished in the daytime with large expanse of glass on front and side and at night by inverted lights. Along the upper edge of the windows of the showroom on both front and side are numerous small lights with shades adjusted so that light is focused on the cars on display. These lights deflect the light just where it is wanted.

In order to enhance the appearance of the showroom and to take full advantage of the lighting facilities provided, the walls and ceiling will be tinted green. Curtains will also be provided for the showroom and accessory department windows.

The sales office and accounting department are at the rear of the showroom. Behind the accounting room and between it and the service department is a hall leading to the basement stairs. In this hall is situated a washroom for the workmen in the service department.

#### The Work Room

The service department can be entered both from the showroom and the accessory department, but the main entrance is on Eby Street. It is conveniently entered by a sliding door, 18 ft. wide. Incoming and out-going cars can thus move

drills, portable crane, oxy-acetylene welding outfit, etc. A spacious washroom is partitioned off from the repair department and can accommodate two cars at one time.

An automatic high-pressure air system with a constant pressure of 160 supplies air all over the building. Two air lines with swinging arms attached to

the wall on Eby Street at the service room entrance are provided for the convenience of patrons.

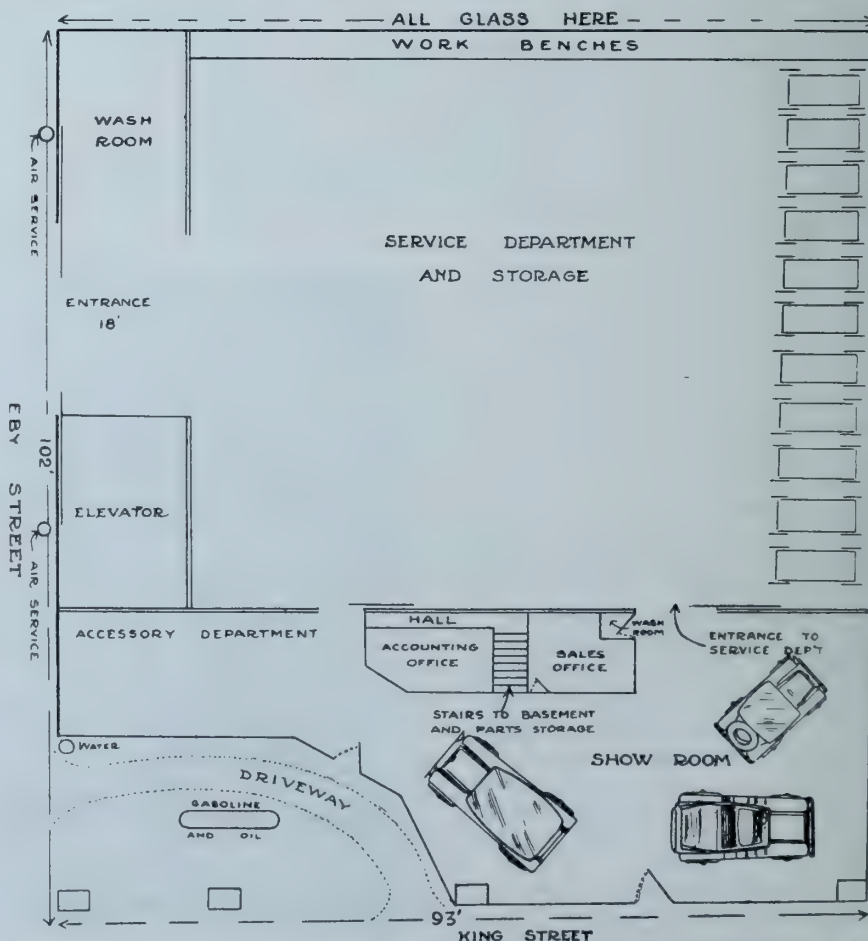
There are facilities in the basement for storing oil and the larger parts.

Metal bins are being built in the basement to accommodate the repair parts, and the more unsightly parts which cannot conveniently be stored in the accessory department.

The whole establishment is a finely conceived selling and servicing unit. Everything has been done that can be done to attract the motorist. The accessory display sings out its message so that even the busiest motorists can hear.

City Motors have the agency for Studebaker cars, and sell parts for Studebaker, Chevrolet and Ford cars. They operate a day and night service.

The proprietors have long been connected with the automobile industry. I. G. Neuber was one of the first men in Kitchener to be interested in handling automobiles. He has handled the Studebaker and Cadillac since 1911 and has been closely identified with the development of the motor industry in Kitchener. R. Kleinschmidt has also been in the automobile business about 20 years. He was first connected with it as a superintendent in the manufacture of gasoline engines. For more than nine years he conducted a service garage in Kitchener and built up a reputation for good work.



This shows the layout of the City Motors. Note the manner in which the gasoline driveway leads the car owner to the accessory department.



# How Can the Automobile Dealer and Garageman Make More Money?

There is a Wonderful Opportunity in the Automotive Industry for the Dealer to Build Up a Profitable Business—Lots of Dealers Are Losing Money, Not Because They Don't Know How to Get Profits, But Because They Are Permitting Conditions to Interfere With Their Getting Them

By RAY W. SHERMAN

Written exclusively for Automotive Trade

ONE DAY in a meeting of a garage-men's association in a certain city a member said he thought something should be done to prevent people parking their cars all night on the streets in front of their houses. His idea was that legislation should be brought to bear to force this business into the garages in that city.

His vision as to the possibilities of business was good, but his method not quite so good. He senses a problem, but he relies on laws to solve it instead of solving it himself. The solution probably could be found if the garagemen had personally gone to the car owners in question and tried to sell them on the desirability of his garage as a storage place.

Legislation seldom solves such problems. The solution of most of the problems of the automotive industry lies within the industry. The solvers of these problems will be the people of the industry—if they are to be solved.

The other day a governmental statistical agency asked the Automotive Equipment Association for some data for an inquirer. The inquirer wanted to know if he would be justified in starting a garage and accessory business. He wanted to know the number of failures and the possibilities of profit. We told him the number of failures in the garage and dealer business was tremendous but was not more tremendous than the possibilities of profit, providing well known business methods were applied to the business.

The dealers—and by dealers we mean garagemen, shop operators, car dealers and the rest of that class—in the automotive industry have a wonderful chance to build profitable businesses that they can pass on with pride to their children and their grandchildren.

It isn't that we haven't known how to get these profits, but that we have permitted conditions to interfere with our getting them. The method is only the application of principles and methods

that are well known and that have proven successful in this and other lines of business.

A business is nothing but a machine. Generally, if fixed up, cared for and properly operated it can be made to produce. Sometimes it is no good and must be discarded, but most machines can be fixed up.

A business is much like that machine we all love so much, the automobile. The

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**To make more money the dealer must aim to produce service at as low a cost as possible. He must aim to avoid losses. He must try to collect the money his customers owe him. He must run his business for himself, but in order to get maximum returns he must keep the public coming to his shop and make people like to come and leave their money with him.**

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business is a machine for producing profits. An automobile is a machine for producing transportation.

## Find the Leak and Lost Motion

If an automobile has no kick to it we look it over from radiator to differential to find the leaks and lost motion. The same should be the case with a dealer's business. As a starter, find the leaks and lost motion. One great leak is material that is put into the stock room and which leaks out and never brings any profit. A proper stock system will check these leaks. It should not be possible for a busy but honest mechanic to grab something out of the stockroom, put it into a job and forget to have it charged. If the profit of a business is 10 per cent. the business must do a dollar of new business for every ten cents of material that is lost through carelessness. Little leaks like this have pulled many a business down to failure.

Therefore—a good stock record and requisition system.

And right here is a most important point—ACTION. As was said before, we don't need to know any more than we know now. All we need to do is ACT on the things we know. Most of us are like the farmer who refused to subscribe for a modern farm journal because "I ain't farmin' now as well as I know how." If we all did as well as we know how what a wonderful difference it would make in our profits.

Trade journals, such as the Canadian Automotive Trade, prints many profit-making plans and ideas. There are booklets, such as those printed by the Automotive Equipment Association, the object of which is to help build a solid dealer foundation under the automotive industry. In these and many other ways the "know how" automotive profit is available, but its availability amounts to nothing unless the plans be used.

Probably most dealers who aren't making money have a vague idea that they are losing some money through faulty stock system operation, yet how many of them have the will and determination to go at the thing and find out what's wrong and then RIGHT THE WRONG.

## Some Suggestions

Here is a suggestion: Add up the number of spark plugs, the pounds of waste and the quarts of oil bought during the last six months. Add up the number of those three items SOLD. They should agree. If you are short 30 spark plugs and if they cost you 50 cents each there is a LEAK OF \$15. If your net profit is 10 per cent. you have had to do \$150 of new business to make up for that \$15 before your machine can start again producing profits.

After you get the leaks and losses out of your machine, the lost materials, the time that men work and for which no customer pays, the tools that are bought and which disappear in mysterious ways, the idle time that is caused



by not enough work in the shop, and all the other little things, you are then in shape to begin getting greater volume out of the machine. First get a stock system, including inventory, requisitions and sales slips and a good set of books.

Then, go at the selling of repair work the same as the real estate man goes at the sale of a new sub-division. Find people whose cars need repairing and ask them to have them repaired. Look

over every car you encounter for articles that the owner can use and "Ask 'Em to Buy."

Study the possibilities of time-saving machinery. If you can get along with four men and good machinery and do more work than you can with seven men and no machinery you will make far greater profits if you are well equipped. Also, show your modern machinery on every possible occasion to the car owner.

Sell him on the idea that you have a real shop.

Sell your work by the job—NOT by the hour,—sell it as do the bootblack, the barber, the doctor and all the other sell-by-the-job people. Some jobs must be by the hour, but most of them can be on a job basis, with a better profit for the dealer and a lower price for the customer, provided the shop is well equipped.

## Pictorial Story of A. E. A. Campaign

This is a pictorial story of the merchandising movement of the Automotive Equipment Association during the first year of its work. Each pin in the map on the wall of the office of Merchandising Director Ray W. Sherman at 1818 City Hall Square Building, Chicago, Illinois, means that a meeting was held, the Ask 'Em to Buy story told and in most cases the Ask 'Em to Buy moving picture shown to an audience of dealers. Sometimes there were five in the audience, once there were seventeen hundred, several times there were five hundred and the average is about seventy.

Fifty thousand people in the trade attended these meetings, of which there were seven hundred, and hundreds of dealers through these meetings are making more money. Most of the meetings were held by jobbers in the territories served.

During the second year of the work the Ask 'Em to Buy moving picture story of Dan Morgan's rise to financial success will be supplemented by another picture which is entitled "Shop Profits." Dealers in any section who want to see these pictures may have them by asking the jobbing house with which they deal. Ask the salesman who calls on you, and don't forget to ask him about the A.E.A.

books, "A Greater Business" and "Shop Profits" which tell how dealers and garagemen may make more money.

The idea behind the movement is well

expressed in the title in one of the moving pictures:

"Our industry can grow only as the dealer first makes profits."



Each pin in the map means that a meeting was held and the "Ask 'Em to Buy" story told to an audience of dealers.

## Overland Dealers In Convention

Officials Review Automobile Situation. Dealers Hear Discussions on Sales Methods

**E**ASTERN Canada Overland dealers held their annual convention on August 31st and September 1st in the Musicians' Temple, University Ave., Toronto, and in point of attendance and general satisfaction it was the most successful gathering of the company's dealers in several years. The program, too, was of a more constructive character.

The outstanding features of the convention were the addresses by A. J. Baker, research engineer of Willys-Overland Inc., Toledo, and L. G. Peed, ass't. sales manager of the American company. The latter addressed the convention both dates—on the first day giving a resume of the automobile situation

in the United States where Willys-Overland has forged ahead with remarkable strides. He gave facts and figures to prove that the prospects were good for continued sales activity in the United States, and could see no reason why Canada should not share in the general prosperity. On the second day his talk was of a very practical character—various sales methods used with success being explained.

In welcoming the dealers, T. A. Russell, president of Willys-Overland Limited, expressed gratification at the change that had come in business conditions this year and with the steady progress that Overland was making, and

analysing the general business situation in Canada he predicted a good autumn. J. R. Marlow, secretary and treasurer of the company, who had just returned from a trip to the Pacific Coast, gave an account of what he had seen there and spoke optimistically as a result of the excellent crops now being harvested.

Some commercial car possibilities were set forth by Mr. Evans, assistant sales manager of the Martin-Parry Company of York, Penn. Service and the parts policy of the company were discussed by B. H. Capsey, service manager of Willys-Overland, Toronto; financing by B. A. McDonald of the Continental Guarantee Company; and advertising by W. M. Canaday, president, United States Advertising Corp., Toledo, and Claude Sanagan, advertising manager of Willys-Overland, Toronto.

On the evening of the first day of the Exhibition visiting dealers were guests of the company at the Exhibition Grand Stand performance.



# Why Tractors Can Be Sold This Fall

This Fall Finds the Farmer in Much Better Financial Condition Than a Year Ago, or Even Six Months Ago—The Present Situation Should Mean Easier Sales for the Tractor Dealer if he Takes the Proper Viewpoint Concerning the Farmer's Requirements

By ARNOLD P. YERKES

**A**T THIS time last year practically every tractor dealer was convinced that farmers would not buy tractors, and very little of anything else, for that matter. As late as the spring of 1922 many dealers were still of the opinion that the farmer was out of the market so far as farm machinery was concerned. A great many tractor dealers are also ending the season with this opinion and it is probably safe to say that the business done by most of them proved to their own satisfaction that their judgment in the matter had been correct.

On the other hand, some dealers were convinced last spring that there was a real need for tractors on the part of farmers in their community and that it was worth making an earnest effort to sell them. These men went out to their customers in an attempt to prove that their judgment was correct and succeeded equally as well as those who had taken the opposite viewpoint. In their case, however, it was a profitable proposition to prove that they had been right, while the pessimistic dealers had nothing but the satisfaction of satisfying themselves that no business could be done and the privilege of carrying over most of their stock of goods.

## Dealer's Mental Attitude

It is not merely theory that the mental attitude on the part of a dealer or salesman of any kind has a very decided influence upon his success in selling goods. It goes without saying that when a salesman approaches a prospect in a half-hearted manner and with the firm conviction that a sale cannot be made, there is very little likelihood of accomplishing anything. When a salesman is in this frame of mind it is probably not exaggerating to state that he would rather have a "No" than a "Yes." His mental attitude cannot help but be reflected in his conversation and is almost sure to have an unconscious effect upon the prospect.

On the other hand, when a salesman approaches a customer under the firm belief that he has something which the prospect really needs in his business, and should buy, his mental attitude also communicates itself to the prospect to a certain extent and makes the task of convincing the latter much easier than would otherwise be the case.

## All Farmers Not Broke

It would seem as though the events of the past year have been such that

tractor dealers should realize the desirability of taking a more optimistic viewpoint regarding the tractor business. In spite of the gloomy predictions of the pessimists, tractors have been sold in greater numbers the past season than ever before and more would have been sold had all dealers taken the attitude of those who went after the business and made the bulk of the sales.

It is not too late even yet for tractor dealers to cash in to some extent on 1922 tractor business. All the farmers were not broke last spring. In fact, conditions never become so bad but that there are some farmers who can still afford to buy equipment they need. This fall, however, finds the farmers in much better financial condition than a year ago or even six months ago. An unusually large small grain crop has been harvested and the price, while perhaps not all that could be desired, is nevertheless high enough to enable efficient Canadian farmers to make profit and place them in financial condition where they can afford to buy the equipment to maintain the efficiency of their farms.

Each passing season convinces an increasingly larger number of farmers that a good tractor is almost indispensable to the grain grower. Its work in



The tractor is as useful on the roads and clearing land as in the fields, plowing, discing, etc.



preparing the seed bed after a late spring, in rushing the harvest during the scorching hot weather, and in running the individual threshing outfit immediately after harvest and placing the crop on the market early or at least making it safe from loss even though it is not desirable to market it at once, has been too valuable to be overlooked by those farmers who have had an opportunity to observe its performance on neighboring farms, and this includes practically every Canadian farmer.

#### Factors Influencing Farmers

Another factor which has considerable influence in converting farmers to the tractor idea has been the rapid development of machines designed especially for use with the modern tractor. When mechanical farm power was first introduced in many instances the lack of suitable machines for use with the new power plant resulted in poor quality of work and inability of tractor owners to utilize their tractors for as many purposes and to as good advantage as was desirable. The development of special machines for use with the tractor, however, has been going forward very rapidly and today farmers can obtain machines which have been designed specially for use with mechanical power and which are not only entirely satisfactory for such purposes but are actually a great improvement over the horse-drawn outfits.

Buying a tractor today does not mean merely substitution of cheaper and more efficient form of power—it means that farmers can take advantage of the numerous other improved machines which can be used only with a mechanical power plant. Dealers should not lose sight of this point. While tractors can be used with most of the horse-drawn equipment found on the average farm, they are much more efficient when special tractor equipment is available for use with them, and it is worth a great deal to many farmers to be able to make use of the larger and better machines designed for use with the tractors.

It is a safe statement that with the vast majority of farmers it is no longer a question of whether the tractor is a good investment or whether they shall buy one; they have answered both these questions in the affirmative in their own minds—it is merely a question of when they shall buy.

And, incidentally, it may be stated that a great many of the tractors which were placed on farms during the past season were "bought" by the farmers and not "sold" by the dealers. In other words many of the buyers had watched the tractors at work in their neighborhood until they had become absolutely convinced that they could not afford to be without this modern mechanical power plant, and accordingly approached the local dealer on the subject. Such sales are no credit to the dealers, especially in times like the present, and it is undoubtedly true that there were a great many other farmers who had reached the point where they could eas-

ily have been sold to had the dealer approached them.

Farmers, like other business men, buy

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## Advertise Your Tractor with a Farmer's Slant

Why haven't we advertised and talked the tractor from the farmer's standpoint? We have been wasting much of our advertising by selling ourselves instead of the farmer, his son and daughter and his wife. We talk physics and engineering to the farmer instead of pigs and crop insurance by the use of time-saving mechanical power. We never thought of telling the farmer that with a tractor he could save enough pigs from a dozen or fifteen pure-bred sows to pay for his tractor, and he could allow his boy to finish high school. Nero fiddled while Rome burned. Did we tractor men sit around in the blue fog of our own self-inflicted pessimism and talk cogs and wheels instead of crop insurance when the river bottoms were flooded and rains kept the low and flat farming sections so far behind that they couldn't catch up?

That's another picture, just a blank jumble of cogs and wheels and a trust in luck to muddle us through. There's no inspiration in it for the farmer and his family.

Now have some of us been sitting around in the slough of indifference? Are we waiting for the farmer to come up and shove his money at us and beg us for a tractor? Are we sore on the tractor and everything about the tractor? Are we so plumb certain that the tractor is down and out and no one wants ever to hear the word, that the fiery-eyed horse walks over the prostrate body of a tractor with sparks striking from his steel shoes as he gives the poor old machine a final kick?

Few of us ever stopped to think that one of the reasons the farmers stopped buying tractors was because they stopped buying everything when they had nothing to buy with at the time when the deflation cut the value of their crops to less than half eighteen to twenty months ago. They pretty nearly stopped buying sugar, and coffee too, if you look into the matter.

—From an address by Guy H. Hall, Director of National Institute of Progressive Farming.

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largely upon their opinion regarding future conditions. No one wants to buy on a falling market nor does one feel justified in purchasing expensive equip-

ment to produce goods which may have to be sold at much lower prices later on. These factors have equally as great an influence on the farmer's buying as has his financial condition. Perhaps it is safe to say that they have even more influence, because if a farmer or any other business man feels confident that future conditions will be such that he can make a satisfactory profit from an increased quantity of his product he will feel justified in borrowing money to purchase necessary equipment to bring about such increased production. On the other hand, if the future does not seem to promise a satisfactory price and profit, he will be disinclined to invest his money in extra equipment even if he has the cash.

There is every reason to believe that conditions for farmers and industry in general are destined to be much better during the next few years than they have been recently. We have passed through the readjustment period much more rapidly than many people believed would be the case. High prices on manufactured articles have been reduced. While in many instances prices are not as low as before the war, there are good reasons to believe that they never will return to their former levels and that instead of undergoing further reductions, prices of many commodities are destined to show somewhat of an increase during the next year or two.

The present situation should, therefore, mean easier sales to farmers for they cannot expect any further material reductions in the prices of equipment nor is there any likelihood of the prices of their own products being reduced to any great extent. It is, of course, quite possible, and perhaps likely, that there will be occasional cuts in prices of some items of farm equipment but on the other hand there are also likely to be quite a good many increases in the near future. It is also practically certain that there will be fluctuations in the prices of wheat and other crops but it seems quite safe to predict that, even with the large yields in 1922, prices will not fall very much lower than at present, so that, taking the situation as a whole, there is no good reason why farmers should not buy right now whatever equipment they really need.

As already pointed out, the salesman's frame of mind has considerable influence upon that of the prospect and if the man who approaches the farmer for the purpose of selling him a tractor is of the opinion that conditions are likely to remain such that the farmer is really not justified in making the investment, it is highly probable that the sale will not be made, and at the same time both the farmer and the dealer may suffer from this fact, for when a farmer really has good use for a tractor, it is more expensive for him to do without it than to buy it.

But if the dealer takes the proper viewpoint concerning present and future conditions he has taken a long step towards producing a similar state of mind in his customer.



# Are Automobile Finance Companies Needed To Help Dealers?

Some Dealers Forced to Extend Credit Almost Equal to Total Capitalization of Their Company—Finance Corporation is Better Adapted to Meet Automobile Dealers' Needs Than Small Banks

By HARRY TIPPER

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**T**HE total buying of the railroad field in sales and equipment in a single year is estimated to reach two thousand million dollars.

The peak of buying in the automotive field of motor cars alone reached considerably over two thousand million dollars and the retail price given by the user for passenger cars and trucks in 1922 will reach approximately that figure, unless the industry is hit with a severe setback.

Approximately 75 per cent. of these sales are made on a time basis. That means that fifteen hundred million dollars is involved in the credit sales. The amount of cash required on the average in the sale of automobiles and trucks for credit is approximately 40 to 50 per cent. This leaves approximately eight hundred to nine hundred million to be taken care of by the financial institutions. Some of this, of course, is involved in trades which reduce the total amount so considered so that it would not be more than two hundred and fifty or three hundred million dollars.

Therefore, the actual credit required by the automobile retailer from the banks or other financial institutions amounts to somewhere between six hundred and nine hundred million dollars in the ordinary course of the year's business.

Where this credit is advanced by the local bank to the local retailer, it is necessary for the dealer to assume the responsibility for the credit of his customer by endorsing the notes to the bank before he can secure the required amount. Where the credit goes through a financial institution created for the purpose of providing this kind of credit, the customer's note will be accepted with certain provisions on the execution of the proper mortgages on the car in favor of the company which is doing the financing.

A retail dealer selling fifty cars at \$2,000 each, approximately, will have to carry a line of credit on these cars amounting to about \$45,000 in addition to his regular line of credits required for the operation of his business.

Having in mind the fact that

80% of the cars are owned in towns of 25,000 and less, the normal capital required for the operation of such an institution might not reach over \$50,000.

In such case the credit extended on cars bought on time would be almost equal to the total capitalization of the company.

At the present time a great deal of the financing is carried on by the local banks and their operations in this case are similar to their operations in financing crops and stocks and other credit requirements. In proportion to the size of the community, however, the financing of the automobile truck is a heavy matter because the units are large and the depreciation is so much greater than the depreciation involved in many of the other items.

The development of the financing corporations for automotive purchases by the individual is a necessary requirement of the very rapid growth in the automotive market and the impossibility of securing well settled means of financing all these items during so short a time. The automotive business, as a business of volume, is not more than ten years old, and the large percentage of that volume has been developed within the last six or seven years. All methods of financing automobile purchases, therefore, are as yet more or less experimental and have not developed to the point where they can be examined for their comparative value without many reservations.

Considering the fact that about 80% to 90% of the buyers of automobiles have owned this kind of equipment before, and also considering the amount of money involved in the purchase of cars, it is not likely that the credit transactions will grow less. It is probable, in fact, that they may invade the used car field to a greater extent and involve a larger percentage of the total car market than they have done in the past.

The number of people who have available the amount of money necessary to pay cash for an automobile, without sac-

rificing some other investments, is comparatively small and the deferred payment is required not only for the purchaser of the cheap car but for purchasers of other cars as well. Undoubtedly, the deferred payment operations became a definite and regular part of the automotive sales, because retailers and sales managers saw how greatly the market might be extended if cars could be sold on the deferred payment plan.

The advantage to the dealer in dealing through a finance corporation, supervising automotive purchases, lies in the fact that most of these companies will take the notes of the purchaser direct with a chattel mortgage on the car so that the dealer's credit is not involved. The dealer secures the full payment for the car; his own credit obligations are kept within reasonable bounds and he is in a position to make a larger margin of profit on his turnover. This is not true of all finance corporations. A number of these corporations do business practically in the same way as the banks—that is—they require an endorsement of a note by the dealer so that he becomes responsible for its payment. In other respects the credit is established on a standard basis so that the credit conditions are known and can be depended upon.

In the case of securing the financing from the local banking institutions, the amount which they will loan upon the individual purchase, is a matter of depreciation and the dealer cannot be sure to what extent he is to secure credit for the notes as this depends upon the estimate of the bank as to the value of the notes themselves.

This makes it a good deal more difficult for the dealer to figure on his business and to make deals with his customers for the purchase of automotive equipment. It is almost impossible for him, unless he has a sufficient line of credit or cash of his own, to complete a deal with the customer until he has determined how far the bank will go with him in the advancement of credit on the basis of such notes.

It is the custom in many banks in



smaller towns for each note transaction to come up before the officers or directors of the bank for their approval before the credit can be advanced to the depositor. In such cases, the individual loans from local banking institutions become involved in a personal equation and reaction of the officers and directors to the individual case. This has its advantages, but it also has very grave disadvantages because of the uncertainty of the credit and the difficulty of meeting the market requirements on any standard ground. The general market for automotive apparatus, particularly cars, is governed by the situation in the smaller towns and cities because the large market for future sales and replacements lies in these sections. In these sections the bank transactions are handled much more largely on the basis of the personal equation and the individual case, because of the intimate knowledge of the people of the community.

Anything which develops uncertainty in connection with the business of re-

tailoring automobiles and trucks, operates to limit the market and delay the sale. Some uncertainty must exist at all times, but the operations of finance corporations, properly conducted, permit the removal of most of this uncertainty in the transaction of the business.

The finance corporation, adequately capitalized and properly managed, dealing with thousands of individual purchasers, and with dealers in many sections, is in a position to develop actuarial statistics in connection with its work which will provide a proper balance between the charges of average losses so that the entire credit will be on a sound basis. The local bank is in no position to conduct business along such lines. The loss in a single case will have too large a bearing upon the future loans and is likely to change the policy of the banking institution in its later credit to the dealers in the vicinity.

Generally speaking, from a theoretical standpoint, the finance corpor-

ation dealing with small loans in the thousands has a better opportunity to determine its business along practical lines than the local banking institution. A few years' development will enable these finance organizations to minimize their losses, establish the proper clearing house information, and develop their charges along similar lines to the insurance companies who have succeeded in getting stable rates on the most variable of statistics because of their establishment of the right conditions and averages through the examination of the trend in these thousands and thousands of cases.

It is to be expected that the same thing will develop in connection with the finance organization and its work in the automotive field. As this does develop, it should largely take the place of the local banking institution as an organization for the financing of individual purchases of automobiles and trucks.

# Simplified Accounting Plan for the Automobile Dealer

The System Outlined Here Has Been Devised to Fit the Needs of Both the Smallest and the Largest Garages—It is Simplified So That Anyone Can Use It

By S. P. COOK

Burroughs Adding Machine Co.

**I**F WE analyzed typical failures in the retail automotive store or garage business, we would find that guesswork was the real cause in practically every case. It might be guesswork as to the total of accounts receivable, which in turn led to poor collections and lack of needed cash.

It is our intention to publish in this series of articles the description of an accounting plan that will give any automotive retailer or garage man the figures he needs to control his business intelligently.

First—It is simple. Second—It is complete. Third—It can be made to stop leaks, to supply figures for the Government, the manufacturer, and the bank, and to increase profits by cutting expenses, and increasing turnover.

In these days of "tight" business conditions, profits as a general thing have been made by cutting operative cost and speeding up turnover, as well as by increasing sales volume.

The net profit that remains at the end of a business year is the thing every

dealer is concerned about. Consequently the profit and loss statement is the most important record in the business.

The accounting outlined here will give

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This is the first of a series of three articles on accounting. The plan uses only your ledgers and a distribution sheet. In the present article the writer deals with two of the ledgers, accounts receivable ledger and accounts payable. With this plan the dealer will obtain every month a business statement which shows the net profit, sales, cost of sales and gross profit in each department of his business.

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that kind of statement. In it are all the figures your banker wants when you apply for a loan. From it you will obtain every month a business statement which shows the net profit, sales, cost of

sales and gross profit in each department of the business.

Such a statement will show at a glance the general condition of your business. It will be a guide to buying; it will show where expenses are eating up your profits; it will show whether your rate of turnover is high enough; it will show whether there are too many dollars lying idle on your shelves or in your bins.

The dealer should have a perpetual balance on each customer's account, as well as a total of accounts receivable at any time—an invaluable guide to collections and a curb on excessive credit. He should have, in fact, comparative figures from all departments of his business that would tell him when and what to buy, where to cut and where to concentrate sales effort—in short, how to control his business and his profits instead of permitting them to control him.

Thousands of automotive dealers and garage men have failed because they did not keep a proper set of books, and a large percentage of those dealers did not



keep books because they were afraid of bookkeeping.

To many of them "bookkeeping" brings up the picture of complicated system, and a considerable expenditure of money.

As a matter of fact, the plan described here is designed not only to provide a set of figure records as complete as the average dealer or garage man needs, but easy to keep up, and easy to use as a guide in managing a business.

#### Accounts Receivable and Accounts Payable

The plan uses only four ledgers and a distribution sheet. Two of the ledgers we shall cover in this article—the customers' or accounts receivable ledger, and the creditors' or accounts payable ledger.

Accounts in the customers' ledger are arranged alphabetically, with one ledger sheet for each customer. Debits (or charges for goods sold) are posted to the proper accounts from the sales slips or invoices. Credits (or payments on account) are posted from checks, credit slips, or memos showing goods returned.

Under this method the dealer has an automatic daily balance on the account of every customer. It follows that he has every day a total of accounts receivable, or money owed him by customers.

This information is valuable. It enables the dealer to check up at a glance the account of every customer. Each ledger gives a complete history of each account—a record of goods bought, and a record of payments made.

Most dealers or garage men know off-hand about how much credit they are willing to extend to any particular customer. Since you have a daily balance on each account, you can tell at a glance

IMPORTANT DAILY FIGURE FACTS	
DUE ME	AMOUNT
MONEY IN BANK (FROM ACCT No 2)	2,311.21
DUE FROM CUSTOMERS (FROM ACCT No 3)	4,431.12
DUE ME ON NOTES RECEIVABLE (FROM ACCT No 5)	1,370.00
TOTAL	8,112.33 *
MONEY OWED	AMOUNT
OWED FOR PURCHASES (FROM ACCT No 10)	3,675.37
OWED ON NOTES GIVEN (FROM ACCT No 11)	3,125.00
TOTAL	6,800.37 *
FIGURES WHICH INDICATE TENDENCY OF BUSINESS	AMOUNT
CASH RECEIVED ON ACCOUNT TODAY (FROM No 3) WATCH RELATION TO CHARGE SALES	178.30
TOTAL SALES TODAY (FROM ACCT No 20) COMPARE WITH AVERAGE	316.68
COST OF SALES TODAY (FROM ACCT No 21) WATCH RELATION TO SALES	187.78
TOTAL SALES TO DATE (FROM ACCT No 20 THIS MONTH) COMPARE WITH PREVIOUS PERIODS	7209.8
CONTINGENT LIABILITY ON ENDORSED PAPER—ACCT 16 WATCH CAREFULLY	6,868.00
GRATIS SERVICE EXPENSE (FROM ACCT 29) THIS MONTH WATCH PERCENTAGE TO CAR SALES	11.20
TOTAL EXPENSE TO DATE (FROM ACCTS. 29-39 INC) THIS MONTH KEEP THIS FIGURE DOWN	228.70
PROFITS FROM DISCOUNTS TAKEN (FROM ACCT No 22) THIS MONTH BE SURE ALL DISCOUNTS ARE TAKEN	19.00

This is the reverse of the distribution sheet. Above are the important daily figure facts copied from the general ledger as described in this article. With this kind of figure information the automotive retailer can tell every day what should be done to earn an adequate profit from his investment. A daily analysis of these figures will show what departments or activities need more careful attention.

**Accounts Receivable**

NAME: James L. Wilson  
ADDRESS: 345 Jefferson St., City. LIMIT: 500

DATE	DEBIT	CREDIT	BALANCE
JAN 9	32.50		
JAN 10	4.50		
JAN 14	1.35		
JAN 21	7.75		
JAN 26	25.50		
JAN 28	4.50		
JAN 30	2.50		
JAN 31	82.85		
			425.00

**INVOICE**

**CENTRAL GARAGE**  
AJAX CARS PARTS ACCESSORIES  
REPAIRS AND STORAGE

Mr. James L. Wilson  
345 Jefferson Street,  
City

Jan. 31, 1922.

1.00 right rear axle	7.50
6 Hub washers	1.50
1 Pinion Gear	11.00
<b>Total Parts</b>	<b>30.00</b>
10 hrs mechanic & time	12.50
<b>Total</b>	<b>42.50</b>

**STATEMENT**

**CENTRAL GARAGE**  
AJAX CARS PARTS ACCESSORIES  
REPAIRS AND STORAGE

Mr. James L. Wilson  
345 Jefferson Street,  
City

Feb. 1, 1922.

JAN 9	32.50
JAN 10	4.50
JAN 14	1.35
JAN 21	7.75
JAN 26	25.50
JAN 28	4.50
JAN 30	2.50
JAN 31	82.85
<b>Total</b>	<b>125.55</b>

Monthly statements for customers may be made up in the form best suited to the desires of the garage man or accessory dealer. This illustration shows what a simple matter statement making becomes when the dealer has a daily balance on all accounts in the customers' ledger. Charges for the current month are added to the preceding month's balance, credits are subtracted, and the remaining balance printed.

whether a certain customer is exceeding the limit; whether he is paying his bills promptly; whether he is a desirable customer.

A dollar's worth of goods or repair work charged to a customer does not represent a sale. Until it is paid for it represents an investment in labor, parts or accessories, the only difference being that the goods are in the customer's hands instead of on your shelves.

#### Value of an Accurate Check

But if a daily balance is kept on each customer's account, and if the total of accounts receivable is carefully watched, the dealer is in a position to push collections when and where they should be pushed, to keep old accounts from becoming bad debts, and to keep the total down to a proper amount as compared with sales.

For this reason it is all-important that the retailer know at all times how much he has outstanding in accounts receivable. Many a merchant has found himself in financial difficulties because he did not have this information.

(Continued on Page 36)



# How a Postage Stamp May Be Used As Your Salesman

Letter Advertising is a Big Sales Booster if Properly Used—It is Important That Mailing Lists be Up-to-Date—Letters Should Have a Human Appeal

By D. R. COWAN

**W**HEN worms are scarce the hen doesn't quit scratching! Not by any means—she scratches and digs all the harder. The wise old hen knows there are worms to be had if she scratches deep enough and long enough in the most likely spots.

The man looking for orders will secure them if he selects the right territories, or most likely prospects and keeps persistently scratching until he uncovers the business. For the dealer, local newspaper advertising and good sales letters to the consumer are two very effective claws to unearth and develop more business and new business, wherever and whenever it is desired.

Dealer advertising in local newspapers is very effective, especially where the dealer wishes to reach a large percentage of the population. It will continue as the popular way to reach a wide and extensive market. But it does not stand ahead of direct letter advertising when the dealer wishes to reach a section of the population in a personal way.

Not long ago the following letter was written by a manufacturer of automotive equipment to a dealer in a small town in Western Canada, where there was no local newspaper through which to advertise. It outlines some of the reasons why the dealer should turn to letter advertising in order to increase his sales:

Dear Sir:—

In days gone by, everybody knew one wealthy firm's advertising slogan—"Schlitz Beer made Milwaukee famous."

Milwaukee's breweries are not making beer to-day—they are making soap. During the past five years the Palmolive Soap Company has bought the breweries, one by one, as its production and sales grew in response to a great advertising campaign. To-day there is more money flowing into Milwaukee to buy soap than the dollars and cents value of all the beer flowing out of Milwaukee, years ago.

Good advertising maintained the flow of money to Milwaukee through all these years.

Good advertising will do the same

for you in the garage business. Competition for business will be keener than ever before. You must tell the likely purchasers what kind of cars, automotive equipment and tires you sell, and the kind of service you give.

And you must tell them at once, or you may lose some sales because somebody else told them before you.

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In the last few years, prejudice against the mail order houses has gradually given way to intelligent effort directed against them by local automotive dealers. Progressive dealers are now using mail order tactics, by use of catalogues and bulletins, and by keeping in active touch with the customer through letters, circulars and newspaper advertising.

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Dealer to consumer letter advertising tells them all at once.

You may pick out the people to whom you wish to send letter advertising and leave out those who are not prospects.

You may tell them your sales story over and over again by letter but it will not become monotonous to you.

The consumer must be told over and over again or he will forget. The shortest thing in the world is a man's memory.

A series of advertising letters has helped many other dealers and it will help you by reminding people of the many things you sell, by telling them about their quality, and by combining these two things to give you a permanently greater sales turn-over.

Letter advertising costs only a minute fraction of the expense of a traveling salesman. Yet it calls at the consumer's home and waits for him at his desk more often than a hustling salesman could possibly do. The profit on the sale of a few articles will pay for the letter service. All other sales resulting from it will be velvet.

You never needed quick sales more

than you do to-day. The quickest way to get them is by dealer to consumer advertising.

About ten days later another letter was sent to the same dealer.

Dear Sir:—

A short time ago, we told you in a letter how beneficial to you and other dealers we considered letter advertising to be. We are again taking the liberty to write to you about it because we would like you to take advantage of a service which we give you at considerably less than cost.

And that cost pales into insignificance beside the ample benefits which will be yours through increased sales and reduction of sales resistance.

No doubt you have competition, and there are many automobile owners who never buy from you. The quickest way—and perhaps your only way—to "steal a march" on the other fellow is to write letters to all his customers, telling them your sales story. You are sure to induce some of them to try your service.

Whether you have competition or not, you are enabled by means of a series of letters, to tell your customers interesting points about your service, about the large stock of automotive equipment you carry, etc.

They will be reminded to buy many things from you which probably would never have occurred to them. Those things alone, would well repay the few dollars spent in letter advertising.

And above all, letter-advertising breaks down sales resistance and builds up good-will. If you tell the customer about the goods you have to sell, he will know what to ask for when he calls on you. Good-will increases because the customer probably never realizes the extent of the service you are offering him until he sees its various angles presented to him one after another on letter-paper.

Dealer to consumer letter advertising is the most important customer-creating force of our time. We feel that you cannot afford to be without it and strongly suggest that



you give our representative a trial order when next he calls on you.

Yours very truly,

The dealer decided to try letter advertising. He wrote several letters covering cars, accessories and tires, and they are being mailed, at intervals of two weeks, to a list of selected prospects in his locality. Following is one of his letters, sent out to a number of tire prospects:

Dear Sir:—

A shingle flies off your roof. You replace it and it costs you only a few shingle nails. But if you neglect it, the rain will trickle through and you may have to employ carpenters and plasterers to repair your ceilings.

Many tire-builders are kept busy in the tire factories because tires have to be built to replace those on which little repairs were neglected.

Is there a little tread-cut or a slight break on any of your tires? Those things will get worse and worse and cost you a big repair bill or a new tire after a while.

Bring your tires to us for examination. If they need little repairs we are well equipped to give you prompt and efficient service.

And another thing—how about your tubes? Are you using a set which lose pressure and so take the life out of your casings?

A new set of tubes will often completely remedy your tire trouble. We recommend our tubes because we know that they are made of excellent material, that they hold air remarkably well, and keep on holding it.

We carry a full line of Wearwell tires, tubes and repair materials, in order to be able to help you with the most trivial repair, or supply you with new equipment. Come in and take advantage of our expert service—for we know every angle of the tire business.

Yours very truly,

Sometimes, more spectacular letters have good results. About a year ago, an unusually effective letter campaign was used by an automobile accessories dealer. This campaign consisted of three letters, the second of which contained a bona fide dollar bill pasted to the letter itself in the upper left-hand corner. Directly underneath the dollar was this sentence: "In order to play absolutely square with you, here is a dollar bill to pay you for the time it would take to read this letter—two minutes." The letter then went on to say that there were absolutely no strings tied to the dollar, and that the reader could keep it if he would take time enough to give the letter a careful, thorough reading. Of the 500 letters sent out, over 400 men came into this particular dealer's establishment, most of them curious to find out how he could afford to do it. Of this number 150 made purchases aggregating \$27.00 each. One hundred and seventy-five returned the dollar bill very cheerfully,

with the assurance that they would be glad to keep this particular dealer in mind when they needed anything in this line.

The campaign attracted wide attention, got a lot of publicity in the newspapers, and cost the dealer in the end a little over \$175.00, but this money was much more than repaid by the number of orders he took in, whose profits more than made up for the expenditure, and

## Personality In Your Letters

When you're writing, think—think—think, until you have the prospect or customer firmly fixed in your mind's eye; write and if necessary rewrite until you have said just what you would have said if the man or woman was sitting opposite to you with the morning sunlight making him blink his eyes at you, says S. Massey in *Motor*. Surely under such circumstances you would not say, in starting off your conversation with the prospect, "I beg to state." No, indeed! It would more likely be—"Mr. Brown, we have been trying to show you just why we claim our car to be, etc." And then you would go on with a line of talk that would be interesting. You'd watch your man closely, and the minute you saw something that caught his attention in your conversation, you'd fly right into the subject with full sails ahead and open up on him like a broadcast. When you had finished and he was leaving, I'll bet my Sunday Hat, that you wouldn't say—"Thanking you for all past favors and hoping to be favored with your valued order"—No! You'd probably say something like this, "Well, Mr. Brown, I'm mighty glad you gave us a chance to go over our proposition with you, and I certainly am going to try to add your name to that long list of satisfied owners." Right? Well then, why can't you put this kind of stuff in a letter? It's just as easy and goes much further.

second, by the unusual amount of advertising it secured him.

The plan has been tried in several guises heretofore, but usually the dollar enclosed was in the form of a cheque which could be used in part payment for anything purchased in the store.

A postage stamp will carry all you can say about the goods you sell to each one of hundreds of prospective customers. But it is exceedingly important to see that the mailing list is up-to-date. Here is what an investigation showed about a mailing list of 1,000 names, three years old:

410 people had changed addresses from one to four times.

261 had moved to parts unknown.

124 had already purchased the product.

83 had bought a competing article.

7 had died.

1 had gone to jail.

A total of 886 persons out of 1,000, practically 90 per cent. were absolutely worthless names. That is to say, for every \$1.00 spent on the out-of-date list 90 per cent. had been thrown away.

Every undirected sales letter means:

1. Loss of that much postage.

2. Loss of the price of the circular.

3. Loss of effort and expense in preparing it.

4. Loss of a probable sale the letter or advertising would bring if it reached the addressee.

In the last few years, prejudice against the big mail order houses has gradually given way to intelligent effort directed against them by local automotive dealers. Direct mail advertisers may learn a great deal from the mail order people, once they are willing to swallow their preconceived dislike for the catalogue houses' progress. Progressive dealers are now using the mail order tactics, first by the clever use of catalogues and bulletins, and second, by keeping in active touch with the customer through form letters.

It should be remembered that customers do not buy goods—they buy the service of goods. Advertising that sells is advertising telling of the money, time or labor which the device or service will save—of the pleasure, enjoyment, health and exhilaration it will bring. Men can always be sold on gain, health, or enjoyment, but it is difficult to sell them on bars of iron and pieces of wood. There is a shortage of dealers who try to appeal to the imagination of prospective customers, consequently there is room and money for the live dealers who will write imaginative sales letters. Find the idea upon which the goods are based and sell that—the goods will then be bought. The great thing is to give a human personal touch to all sales letters.

In one of Ontario's colleges there was a girl—a pippin; charming and good-looking. The male students were all charmed with her and courted the young lady to the best of their ability. A certain freckled-faced and honest student—we'll call him Sam—adored the girl but was badly up against it—couldn't dance, sing, or play cards. But vacation season came along and Sam had his innings. He wrote letters to the young lady—got by with it—put it over all the others with a diamond ring as the result.

There's a lesson in that for the dealer. You can get a hearing by letter when you can't get a "look-in" otherwise. Sam sold himself by letter when in person he had no show. You can sell anything by letter if you use good English written in an interesting, human, personal style.



# Successful Experiments With Tractors In India

An Interesting Story of Agricultural Conditions in India and Their Relation to the Power Farming Industry—Tractors Have Been Used Successfully on Large Estates and in the Writer's Opinion Will Blaze the Way for Other Modern Machinery

By TRADE COMMISSIONER H. A. CHISHOLM

FROM time to time during the last twenty years attempts have been made to introduce motor or steam-driven agricultural machinery into India. Thousands of pounds were spent by one English firm before the war in an attempt to introduce modern threshing machines. Threshers were set up at several points throughout India in charge of mechanics employed by the importing firm, and the peasants were invited to bring their grain to be threshed free of charge. The scheme proved to be a thorough failure as the ryots would not bring their grain to the thresher. The chief reason for the failure is said to be the intense conservatism of the Indian peasants, whose farming methods have not changed in a thousand years. It has also been said that the ryot thought that this new fandangled machine was only a ruse on the part of the zemindar (large landowner) or Government to get more money out of him. The Indian peasant is loth to let a third party get control of his grain until he has received his money for it. Other firms have made efforts to introduce modern threshing machinery but it is said that they have all met with failure.

## Tractors Already Employed on Large Estates

The situation is different, however, with the tractor-driven plough. A few tractors have been used in India for several years by companies operating tea, sugar and rice plantations. Company-owned plantations form a comparatively small fraction of India's total agricultural area, but the peasant in some sections of the country is thus becoming accustomed to the tractor, and it pleases him to see how easily hard ground is turned over by the tractor plough. The use of the tractor is again complicated, however, by the prevalent custom of cultivating land in tiny patches—a tenth to a quarter of an acre in extent separated by low embankments of earth which serve as "line fences" for the delineation of ownership and also for the retention of water. Under such circumstances the use of the tractor plough is out of the question.

On the other hand, every province in India contains considerable areas of culturable waste land of excellent quality in excess of the cultivating capacity of the existing village population by ordinary methods. Most of this "culturable waste" had been at one time sown to rice, but as it is customary to abandon rice fields after a certain period of cultivation, such lands soon grew heavy grass and reeds. When the ryot wishes to bring this land under cultivation again he finds that his primitive oxen-drawn plough is not strong enough to break this heavy sod, and that it requires the most laborious hand digging to bring it into cultivation again. As agricultural labor in India has in recent years not only been scarce but also extremely inefficient owing to fevers and insufficient nourishment, the area of land in "culturable waste" and "current fallow" is now very large. Agricultural statistics compiled by the Government of India show that the net area sown to crop in recent years has averaged between 200 and 225 million acres, while "culturable waste" amounted to over 110 million acres and "current fallows" to some 60 million acres. Between 1918 and 1920 the net area sown dropped about 10 per cent. while the areas in "culturable waste" and "current fallows" increased 10 per cent. In other words, out of India's cultivated total area of 390 million acres, some 40 per cent. is now out of cultivation.

## Problem Solved By Tractor Drawn Plough

This serious state of affairs is now engaging the attention of the agricultural officers of the various provinces, who realize that the tractor-drawn plough offers the only solution to the problem of bringing more land under active cultivation. Some of these officers have been provided by the Government with tractors for demonstration, while in other cases the tractor manufacturers have supplied the necessary machines and demonstrators. Usually the zemindars or landowners do not possess sufficient initiative to purchase their own outfits, so that the agricultural officers of the

Government together with tractor companies and their distributors are doing most of the pioneer work and are in many cases beginning to make it pay.

The method usually followed of introducing the tractor plough is as follows. The Government officer or company's representative approaches a large landowner who has several hundred acres of culturable waste in his domain and offers to plough it for him, providing the expenses of the operation are remitted to the Government or company after the first crop is taken off. As the zemindar receives no return from uncropped land he readily accepts such a proposition. As soon as the land is ploughed it is offered on profit-sharing terms to the tenants, who conduct all the remaining agricultural operations and return to the landowner one-third to one-half out of the produce obtained.

## Necessity of Organization by Tractor Manufacturers

Owing to the lack of skill and experience on the part of drivers, tractors in India have more breakages than they would in Canada. It is extremely important, then, to have a well-distributed spare part service in every area employing tractors. Several well-known American and European tractors are already well established in India with their own service men from the home factory. It will be necessary for any Canadian tractor manufacturer interested in the Indian market to send out his own representative to explain his machine to dealers and to assist his distributing house in India to organize the territory. It is of very little use merely to appoint an agent in India and to send him a demonstration tractor. The agent should have the expert technical assistance of the service man from the home plant.

Whether modern agricultural machinery will be in general use throughout India is very doubtful, but it is a fact that the tractor-drawn plough has been successfully introduced into Indian agriculture. The two or three tractor manufacturers who are now engaged in an intelligent organization of this market will reap a certain reward in the future.



# Do You Know How To Figure Percentages?

Percentage is a Standard of Comparison for Amounts, Just as a Thermometer is a Standard of Comparison for Temperature—  
In Using Percentage as a Tool to Work With the Dealer Should  
Have a Clear Understanding of Its Meaning

**T**RADITION says figures don't lie. Yet, the wrong interpretation of figures may throw the head of the business completely off the track. Mercantile agencies report that a large number of commercial failures are directly due to the proprietor's or manager's belief that the business is making a profit when, as a matter of fact, it is running at a loss. And the reason for this is that, in at least the majority of cases, the business man has been deceived by the use of percentages in allowing for profits.

## What is Percentage?

In using percentages as a tool to work with, we should have a clear understanding of what percentage is. Percentage is a standard of comparison for amounts, just as a thermometer is a standard of comparison for temperature, or an inch, foot or yard is a standard of comparison for lengths. The word "percentum" means 100 parts, or 100ths. Therefore, amounts are compared by per cent. or hundredths, as lengths are compared by inches and feet, and temperature by degrees.

Accordingly, one amount compares with another amount as each contains a less or a greater number of 100ths, in the same manner that one temperature compares with another temperature according as it contains a greater or less number of degrees, or that one length compares with another length as it contains a greater or less number of inches. It is seen from this that percentage is simply a means for measuring figures.

## How to Find Percentages

In finding percentages, we always have a clearer view of the matter, if we put the figures in the shape of a fraction. Percentage, from the viewpoint of mathematics, is fundamentally nothing else but decimal fractions. You say that 50 is one-half of 100. That means that 50 is fifty one-hundredths or 50 per cent. of 100. Likewise, 20 is twenty one-hundredths or 20 per cent. of 100; and ten is 10 per cent.; and 5 is 5 per cent. The principle here is the same as that governing the change of common fractions into decimals, which is: "Divide the numerator by the denominator," or "divide the upper figure of a fraction by the lower."

To illustrate, let us assume that the annual sales of a certain business amount to \$100,000.00, and that the annual expenses aggregate \$25,000.00. What we want to determine, first, is what percentage of \$100,000.00 is \$25,000.00. To do this we put the figures in the shape of a fraction, and divide the upper figures by the lower, thus:

$$\begin{array}{r} 25,000 \\ \hline 100,000 \end{array} \times 100 = 25\% \quad \text{or} \quad \frac{25,000}{100,000} \times 100 = 25\%$$

We find, then, that the total yearly expenses of \$25,000 represent 25 per cent. of the total yearly sales of \$100,000. And we know from this that, in making up our selling prices, we must add 25 per cent. for expenses, plus whatever margin of profit we desire to make.

## Why Anticipated Profits Are Not Made

This is all apparently simple enough. And yet it does not always work out just right, it seems. Let us see, then, what it is that tangles up so many of us in attempting to handle percentages.

For purposes of illustration, let us take, first, the method of the business man who knows nothing about what his expenses are. He has perhaps heard some other man in the same trade or industry say that he figures to make 10 per cent. profit, and because that is what he thinks others are asking, he will figure something like this on a sale, which costs him, say, \$20.00;

$$\begin{array}{r} \text{Cost of goods} \dots\dots\dots \$20.00 \\ \text{Add 10\% of \$20.00 for profit} \dots\dots 2.00 \\ \hline \text{Total} \dots\dots\dots \$22.00 \end{array}$$

He will probably mark the goods to sell for \$25.00, thinking that the extra \$3.00 will cover his overhead expense, and that he will make his 10% profit and perhaps a little over.

Let us see, now, what has really happened:

$$\begin{array}{r} \text{Cost of goods} \dots\dots\dots \$20.00 \\ \text{Expense, 25\% (not of \$20.00, but of \$25.00, which will be explained later)} \dots\dots\dots 6.25 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Total cost} \dots\dots\dots \$26.25 \\ \text{Sale price} \dots\dots\dots 25.00 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Net loss} \dots\dots\dots \$ 1.25 \\ \text{or 5 per cent of the selling price.} \end{array}$$

Next let us illustrate the method of the business man who knows, from last year's figures, that his expenses amount to 25 per cent. of his sales, but does not know how to apply that knowledge correctly.

Probably his estimate will show up like this:

$$\begin{array}{r} \text{Cost of goods} \dots\dots\dots \$20.00 \\ \text{Expenses, 25\% of \$20.00} \dots\dots 5.00 \\ \text{Profit, 10\% of \$20.00} \dots\dots\dots 2.00 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Total} \dots\dots\dots \$27.00 \end{array}$$

Let us see what has happened in his case:

$$\begin{array}{r} \text{Cost of goods} \dots\dots\dots \$20.00 \\ \text{Expenses, 25\% of \$27.00 (instead of \$20.00)} \dots\dots\dots 6.75 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Total} \dots\dots\dots \$26.75 \\ \text{Sale price} \dots\dots\dots 27.00 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Net profit} \dots\dots\dots \$ 0.25 \\ \text{which is .926 per cent. (less than one per cent.) of the sale, and not ten per cent.} \end{array}$$

The differences between actual and anticipated profit, developed in the above illustrations, are due entirely to the fact that two different bases have been used in arriving at the results. In the first instance, the percentage of expense of 25 per cent. was arrived at by using the sales at selling prices. In the second instance, this percentage was applied to the sales at cost prices. This is the error too often made by business men.

Suppose the cost of a given article or commodity is \$1.00, and a merchant wishes to add a margin of 33-1/3 per cent. to the selling price, how would he figure it? Adding 33-1/3 per cent. to the cost will not give the desired result because:

$$\begin{array}{l} 33\text{-}1/3\% \text{ of } 1.00 \text{ equals } 33\text{-}1/3 \text{ cents.} \\ \$1.00 \text{ plus } 33\text{-}1/3 \text{ cents equals } \$1.33\text{-}1/3, \\ \text{or the selling price.} \\ 33\text{-}1/3 \text{ cents divided by } \$1.33\text{-}1/3 \text{ equals } 25\% \end{array}$$

Hence, instead of earning 33-1/3 per cent. on the selling price, as he had planned, the business man would actually earn 25 per cent. only, because dif-



ferent bases were used in the calculation.

The following table gives the equivalent percentage to be applied to cost prices in order to secure a given margin of profit on selling prices.

Desired Per Cent on Selling Prices	Corresponding Per Cent on Cost Prices	Desired Per Cent on Selling Prices	Corresponding Per Cent on Cost Prices
25	.333	38	.613
26	.351	39	.639
27	.370	40	.666
28	.390	41	.695
29	.410	42	.724
30	.430	43	.754
31	.450	44	.786
32	.471	45	.818
33	.493	46	.852
34	.515	47	.887
35	.538	48	.923
36	.563	49	.961
37	.587	50	1.00

#### Rule for Figuring Percentages

In this matter of figuring percentages, the very first thing we must get a firm hold on is this:

**THE SALE PRICE REPRESENTS 100 PER CENT.**

To figure by per cent. intelligently we must have, somewhere, something that represents 100 per cent., which in this case is the **SALE PRICE**. When we attempt to figure any part of the whole as 100 per cent., we immediately get into difficulty. All component parts are measured as 100ths of this 100 per cent. Hence,

If expenses represent ..... 25%  
And profit represents ..... 10%

We have accounted for ..... 35%  
And the cost of the goods must, therefore, represent ..... 65%

Making the sale price ..... 100%

In other words, the \$20.00 cost of goods is 65 per cent. of the sale price, which sale price is represented by the total of 100 per cent.

In figuring percentages of this kind, the following rule must always be observed:

**DIVIDE THE AMOUNT OF THE COST BY THE PERCENTAGE IT REPRESENTS.**

**THE ANSWER WILL BE THE SALE PRICE.**

\$20.00 divided by 65% equals \$30.77, which should be the selling price of the merchandise, provided the price paid for the goods is \$20.00, expenses are 25% of the sales, and the dealer wishes to make a profit of 10 per cent net.

How do we know this is correct? A method to be of any value must be susceptible to mathematical proof. Let us therefore prove the proposition thus:

Cost of goods	65% of \$30.77 equals	\$20.00
Expenses	25% of 30.77 equals	7.69
Profit	10% of 30.77 equals	3.08

Total 100% of \$30.77 equals \$30.77

This method is absolutely correct, whether it is applied to a 50c. sale or to a \$500.00 sale.

The selling price is 100 per cent., or the whole. All component parts are represented by 100ths, or percentages of the whole. There is nothing in the entire equation that represents 100 per cent. except the selling price. Hence, all percentage computations should be based on the selling price.

## Reo Produces New Phaeton

**T**HE REO Motor Co. has added a 5-passenger phaeton to the Reo line. The standard T-6 chassis is used, but there are considerable additions to the regular furnishings.

The top is of new design with gray interior trimmings and finished with nickel moulding and leather inserts. High grade carpet is fitted to both driver's and passengers' compartments. The windshield is of new design. The lower half is stationary and the upper half is arranged to swing in either direction. The windshield is fitted with side wings, as standard equipment, these being in the form of heavy nickeled braces, supporting the entire shield and making a ready means of attaching the side curtains. The windshield is of brass, nickel finished. A cowl ventilator is standard equipment. Aluminum moulding fitted at the back of the hood where it joins the cowl prevents scratching of the body due to careless handling of the cover. Step plates and kick plates of aluminum also save the running boards. The radiator core is nickel-plated. The headlights are of a new design with a nickel bail

or handle and fitted with dimming lenses. There is a combination parking and automatic signal on the rear.

Steel disc wheels, with tires inflating from the outside and cord tires 32 x 4 in. and an extra rim are standard equip-

ment. Other equipment includes motor, radiator cap with ball handles, eight-day keyless clock, cigar lighter, ladies' vanity case, front and rear bumpers, slip cover and nickeled foot rail with aluminum covering.

## Some New Lexington Models

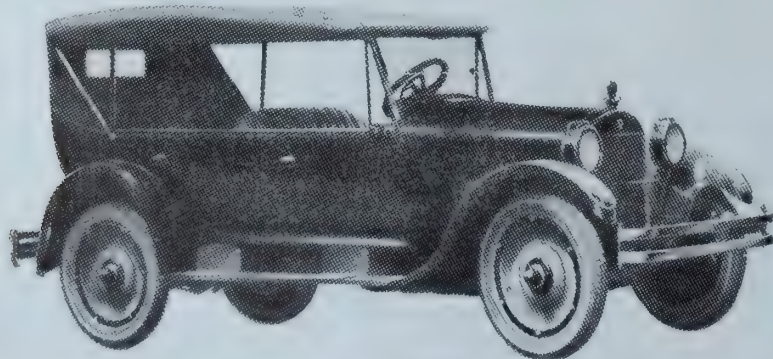
**T**HE Lexington Motor Co. have just announced the Lexington line for 1923. There are ten body types included in the list of Series 23 models. The company has decided to confine its line to one chassis, the Ultimate, with 123 in. wheelbase, abandoning for 1923 the 122 in. and the 128. The Ansted motor will be the only engine used in the new line.

Of the 1922 family only two models are retained, the 5 passenger phaeton, which has been reduced from \$1,745 to \$1,695, U. S. price, and the 5 passenger sport model, which has been dropped from \$2,100 to \$2,045 U. S. price. The rest of the new line consists of a 2-pas-

senger roadster, a 7-passenger phaeton, 5-passenger California top, 7-passenger California top, 5-passenger Royal Coach, 4-passenger coupe, 5-passenger sedan, and 4-passenger brougham. The roadster, Royal Coach and brougham are brand new additions to the line.

#### WESTCOTT PHAETON HAS CALIFORNIA TOP

**T**HE seven-passenger phaeton just brought out by the Westcott Motor Car Co. is distinguished by the fact that it is the first touring car with a permanent type of top as standard equipment. The price will be \$1,990 in the U. S. or \$100 more than the seven-passenger C-48. The top is of California type with a rigid frame. It is braced with angle iron and the rear quarters are steel sheathed. The car is known as the Larger Six. It is mounted on a 125 in. wheel base. The equipment of the car is particularly complete, including storm curtains which are designed to fit with the Westcott permanent top. There is a cowl ventilator controlled by a rod on the instrument board. For \$100 additional, a rigid frame plate glass window enclosure is provided, which is designed to give practically a closed car appearance.



Reo Phaeton



# Modern Practice in Battery Service

Herewith Automotive Trade Introduces a Series of Articles Dealing With the Storage Battery—The Articles Are Written by an Electrical Engineer of Wide Experience and Will Embrace the Whole Field of Battery Practice

## Article I.—Impressive Service

By G. R. ARCHDEACON, A.M.I.E.E.

AS ONE wanders through "Motorland" (as exemplified by the various and sundry jobbers, dealers, agents, distributors, service stations devoted to the requirements of the motoring public) one is forcibly struck by the constant re-iteration of that word "SERVICE."

Judging by the frequency of the repetition of the word, there must have arisen the idea that some potent magic has attached to this simple word "SERVICE."

Unfortunately there is no disguising the fact that this word has all too frequently become merely a word, a sound, and nothing more.

It is the author's intention in this series of articles to devote his pen entirely to the question of "SERVICE" as it applies to the storage battery, and the battery service station.

In the operation of the battery service station, there are two distinct major problems to be faced.

- (1) The duty owing to the customer.
- (2) The duty owing to the battery.

There is also a third line of duty, and that is the duty to yourself.

It is most essential that this third

duty should be ever borne in mind, but it should on no account obtrude itself; as frequently when performing the most satisfying duty to yourself, you are also rendering the greatest and the sincerest duty to your customer.

It therefore becomes obvious that to achieve that success which one is apt to cherish as a result of his endeavours, it becomes necessary to start out with an IDEAL, which must be ever before you, and to which you must be prepared to make sacrifices both in time, patience, and money.

It has frequently been stated "that cleanliness is next to Godliness." Then start in right away and become more Godlike, by cleaning up all that dirt, waste, oil grease, discarded parts, etc., that are strewn about your garage (service station).

What do you imagine was the object of putting glass in those windows, if you cannot see through them, or what is still more important, if the motoring public cannot see through them?

Take that little office of yours. Was it intended for the headquarters of the local debating club? Is it essential to the running of your business that the

curtain should be so conspicuous? Must your desk always look as though a typhoon has recently struck it and disturbed the arrangement of your letters and papers?

Remember if you willfully take such pains to advertise to your customers, that you are untidy in your habits, careless over your business documents, you surely mustn't grumble if they arrive at the conclusion that you may be equally careless with their \$2,000 automobile when committed to your care.

Fortunately such a picture as above hinted is not always to be found. There are many garages and service stations that may be considered as models worthy of attention as possessing all the most desirable qualities. But my friend, THERE ARE OTHERS!!! However, the garages that are making the real money are the ones that make some effort to be inviting.

Having read so far, just have another look round your garage! Do you see room for alteration and improvement? Well then just trot out your imagination and give it a little exercise, by building "in your mind's eye" a "super-garage," something that is going to knock the

The new Gardner 5-passenger Sedan. For a description of this car see page 7.





other fellows in your town into the proverbial "cocked hat."

### Impressive Service

In your newly evolved service station, we will establish a principle of IMPRESSIVE SERVICE.

Let us take a parallel case amongst our friends of the optical parlours. Some fifteen years ago, an optical parlour was a very ordinary sort of a room or small parlour, with a case full of lenses, a chair, a heavy spectacle frame to hold the lens, a chart hanging on the wall before you.

In such a place doubtless you secured a correct diagnosis of your condition (for the man in charge was qualified). To-day that is all changed: the optical parlour is a place full of wonder and mystery, elaborate expensive instruments bewilder the mind, yet stimulate the imagination into the belief that this is the one and only "real way" of having your sight tested.

And so we are all ready to "fall for it" and most willingly pay several hundred per cent. more to the man who can offer us this IMPRESSIVE SERVICE, than we would be willing to accord to our erstwhile friend of a former period.

Why do you imagine the famous hotels squander such huge sums on their gilded walls? Why have the gorgeous moving picture palaces replaced those of a simpler age?

It is a result of having studied the "Psychology of the Crowd" and having had the sense to apply it in actual practice, with the result that the dollars have rolled into their lap, whilst the other fellow has lagged behind and called it "bad luck."

If such measures bring success to opticians, hotels, movie theatres, etc., why shouldn't they apply equally well to the automotive service station?

Let us take a peep into such a service station. What do we find?

### Entrance

The entrance simply **must** be a "Drive in" entrance. A most impressive trick is to either have an electrical contrivance or a mechanical one, with which the door can be opened immediately the customer sounds his horn demanding your services.

There is something majestic, in fact almost Olympian in the self-satisfied sense of power, when in response to the touching of a button on your steering wheel, the doors of a service station silently open to your demands.

By such a simple trick you have created an atmosphere favourable to your particular service and first impressions are lasting.

This impression once created has to be maintained, therefore the reception of the customer, having been admitted, must be of such a character as to maintain his first impressions.

### Service Floor

The customer should have room to drive in ease on to the service floor, which should be kept CLEAN, and be

entirely clear of odd tools or "junk" any kind, so that the customer may descend from his seat without stepping into a pool of oil, or a patch of grease, or stumbling over some carelessly strewn tools lying about the floor.

The attendant should approach with a neatly made push waggon, upon which should be mounted all the necessary instruments for making the usual tests on the battery or ignition system. A printed form should be used (in duplicate for preference) with details of the customer's name, address, car, battery, etc., at the head of the form, with columns provided for the recording of the results of the tests made. The duplicate copy should be handed to the customer, whilst the original should be kept for the office files. This will provide you with a valuable mailing list for future use.

Should it be necessary to change the battery, or make any other adjustments, etc., the customer should be invited to pass the time in—THE REST ROOM.

The rest room should be the model of cleanliness, and tastefully arranged with a table, two or three chairs, show cases containing samples of the various lines of accessories of interest to the average motorist. On the table should be that morning's paper and several magazines.

By such means the customer is made to feel welcome, and the time he may have to spend awaiting the completion of simple adjustments, is agreeably idled away in an inviting atmosphere.

Opportunity may be taken here to en-

list his attention in your various supplies, or demonstrating to him the special qualities of the storage battery you may be handling, all done with the object of effecting a sale, either immediately or in the near future. The prime object however, is to build up "goodwill" which will in due course pay handsome dividends.

The job now completed, the attendant should then announce the fact to the customer, addressing him by name, (this information being afforded by the card which was filled in upon his entrance).

The exit should be made through another door wherever it is possible to provide such.

Possibly many readers may be inclined to remark: "The writer is crazy, who is going to waste all that time on a chance customer, who may only want his battery filling up with water, and expects us to give it to him for nothing."

The author can only reply, that all customers at some time in their appearance in your "service station" were only "chance customers" and it depends entirely upon yourself whether they ever become regular customers.

Furthermore, what are you in business for, if not to entice people into your place of business, and once having them there doing all you can to interest them gain their confidence, and build up their good will, so that some day you will gain their patronage? To achieve such a result you will need considerable "waste of time."

## Ford Says Will Close Sept. 10— Opening Indefinite

Price of Coal Main Factor—Production Averages  
Five Thousand Cars Daily

Detroit, Aug. 28.—Blaming the coal shortage on Wall Street manipulators, Henry Ford has ordered the closing of his plants on Sept. 16. He states that he will not re-open his factories until he can get coal at a fair price. Telegraphic notices have been sent out to about 2,000 sources of supply to cease shipment until further notice.

A formal notice signed by Edsel Ford states: "On account of coal shortage we will be unable to operate our plant after Saturday, Sept. 16. No material will be received if shipped other than as detailed in the letter following."

It is estimated that the closing of the Ford plants will be responsible for the laying off of over 1,000,000 workmen. There are approximately 50,000 at the Highland Park plant, 20,000 at the River Rouge and other Detroit plants and 30,000 at Ford branches throughout the country. There are 1,500 plants scattered throughout the country whose principal business is the supplying of parts and materials for Ford cars.

Henry Ford reiterated the statement this morning that he will not pay excessive prices for steel or coal. He states that he could get coal if he were willing to pay over the market price, and that he had been offered 60,000 tons at \$6 a ton. He refuses to pay more than \$4.50.

Ford has sufficient coal on hand to run until Sept. 16 and then to keep his ovens and boilers warm for an indefinite period. Ford production has been running in excess of 5,000 cars per day.

None of the other plants are affected as seriously as Ford. When asked when plants would resume, Ford stated that he had no idea and that the situation seemed to him impossible.

WINDSOR, Ont., Sept. 1.—Ford Motor Co. of Canada may have to shut down Sept. 30, according to officials of that company. While the fuel supply of the Canadian concern is fairly satisfactory, it is pointed out that the supply of a great many of the suppliers is low and this would force a closing.



# Now is the time for International Engines!

## Steady Power For the Lighter Belt Jobs

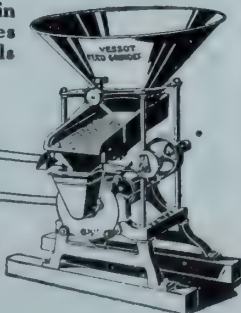
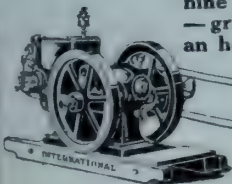
A SMALL engine is a year-round necessity on the average farm. There is always something for it to do—grinding feed—sawing wood—shelling corn—running the cream separator, the washing machine, and the churn—to say nothing of pumping water for the stock.

These jobs are back-breakers. Life is too short to spend on this kind of hard manual labor. Many of the tasks just enumerated are done by the women on the farm, and the doing of them, season after season, takes years off a woman's life.

## INTERNATIONAL Kerosene Engines

provide cheap, dependable power for these jobs that otherwise would be done by power of arm. The International line of kerosene engines comprises four sizes—1½, 3, 6, and 10 h. p. All of them operate successfully and economically on kerosene. There are no batteries to bother with—the engine starts and runs on a simple magneto. Enclosed crank case and removable cylinder sleeve are regular on all sizes.

Vessot feed grinders are made in nine sizes—6½ to 15-inch plates—grinding from 5 to 130 bushels an hour.



Write your nearest branch house today for complete catalog and investigate the cheapest farm power you can buy.

**INTERNATIONAL HARVESTER COMPANY**  
OF CANADA LTD  
HAMILTON CANADA

WESTERN BRANCHES—BRANDON WINNIPEG MAN. CALGARY EDMONTON LETHBRIDGE, ALTA.  
ESTEVAN N. BATTLEFORD REGINA SASKATOON YORKTON SASK.

EASTERN BRANCHES—HAMILTON LONDON OTTAWA ONT. MONTREAL QUEBEC QUE. ST. JOHN, N.B.

Farmers are needing and are thinking about this sort of equipment at this season. Begin to prepare now to supply their needs.

Start an aggressive campaign! *Advertise—Canvass—Sell!* There is good International Engine and Vessot Grinder business ahead for the McCormick-Deering dealer who goes out after it.

**International Harvester  
Company of Canada Ltd.**  
HAMILTON, CANADA

Western Branches—Brandon, Winnipeg, Man., Calgary, Edmonton, Lethbridge, Alta., Estevan, N. Battleford, Regina, Saskatoon, Yorkton, Sask.

Eastern Branches—Hamilton, London, Ottawa, Ont., Montreal, Quebec, Que., St. John, N.B.



# Large Percentage of Car Sales Are Influenced By Women

To-day the Canadian Woman is the Power Behind the Man—  
Car-Hunting and the Power That Makes the Sale—She Herself  
Too is Coming to the Front as an Individual Buyer

**J**UST as long as the human race retains the power of speech men will go on discussing women and women will continue to discuss both men and women. Yes—woman is a topic never out of date, and to-day we will make her the central point of interest in our discussion.

\$3,500,000,000 was spent last year for the purchase of automobiles and accessories. How much of this total sum can be traced to a woman's final decision?

May we ask another question—how far would automobile manufacturers have been able to develop their product if only mere man were the consumer? Certainly the world would not boast to-day of its exquisitely appointed closed cars. Indeed, woman has certainly cast a magic spell over automobile designers and producers and aided them in recreating the clumsy motor of 20 years ago with its high, uncomfortable body. And as the result of her influence, the modern motor has become "a thing of beauty and a joy forever." Manufacturers are ever on the lookout to make new improvements that will add to the comfort of milady.

We must give man the credit of evolving this great time and distance destroyer, but we must not fail to acknowledge the great debt we owe to his sister for revolutionizing it.

The automobile has found high favor with men because of its utilitarian value, and it is an open question whether it would not have remained just a Dobbin-less-Utilitarian-vehicle if woman had not stepped in at the psychological moment and socialized it.

Automobile historians may point with pride to the fact that "the automobile was invented primarily for man—therefore it is he who has commercialized it, but they are adding a foot note to this page of motor history to the effect that woman has been a tremendous factor in merchandising it.

Motoring as a pastime for women is not a new one—Yes, the young, middle-aged and old, if there are any old, have enjoyed the intense pleasure that comes from driving their own cars for many years. According to feminine motor history, the English women were probably the first to attain prominence at the wheel. And almost twenty years

ago, an English sportswoman wrote a charming little volume on "The Woman and the Car"—She pointed out "that not even in France, where motoring received its start, nor in Canada or the U. S. where the fair sex is supposed to receive and to exercise its largest freedom—are women driving their own cars as in England—Whatever the cause, whether it is due to the greater sense of security or from lack of annoyance on public roads, or simply to superior-

---

**Why couldn't advertisements be developed that convey a message to both Milady and her Lord and Master?**

If more "Reason Why" copy had been addressed to women this year, more single women would be the proud owners of cars to-day. There are thousands of single women in Canada to-day who do not own cars simply because no one has tried to sell them. They think of a car as man-made, so complicated that they couldn't drive it, that its purchase would mean the additional expense of a chauffeur, heavy tire bills and expensive up-keep—that it is a far greater liability than an asset.

---

ity of pluck, the fact remains that women in England excel their sisters in the other countries as greatly in motoring as in horsemanship." Certainly we will all agree that this is ancient history.

## Power Behind the Sale

To-day the Canadian woman is the power behind the man-car-hunting, and the power that makes the sale. And why shouldn't she be? She is the chancellor of the family exchequer to-day. And next to the purchase of a home, the automobile is the largest purchase in the average family's life. Then she herself is coming to the front as an individual buyer, and she is learning more and more about various accessories used on cars and is demanding more each season. We must not forget that knowledge invites confidence.

One of the well-known woman's mag-

azines of the country, conducted an investigation of its subscribers to ascertain how many owned cars. The questionnaire was sent out to 7.7 per cent. (approximately 1,000) of its subscription list and the responses were remarkably high, 46.8 per cent. answering the questionnaire. 51 per cent. of the subscribers investigated owned cars, 61 per cent. of these owners drive, and 8 per cent. own more than one car. It is interesting to note that 30 per cent. of this market is for high-priced cars and 51 per cent. for medium-priced cars. Women are becoming so interested in the motor industry that they are bringing selling data to you gratis. Mrs. R. S. Hollander, Metropolitan Secretary of the American Automobile Association, told me recently that at the association headquarters they have almost daily evidence of the enthusiasm and interest of women in motoring in all its phases—to quote her—"not only do women plan most of the trips taken by the family, but they do have a lot to say about the kind of car, its equipment, etc. The time has gone when the motor is explained to the husband, and the powder-puff holder is shown to Friend Wife. Women want to drive the cars as well as sit in them and be taken along. They have very decided preferences as to makes of cars, and are much more interested in the springs than in the upholstery. It has often occurred to me," she adds, "that automobile saleswomen might well be employed to sell cars to women, or at least to assist in the sale. They could bring out some of the psychological points that would appeal and that the salesman might not think of."

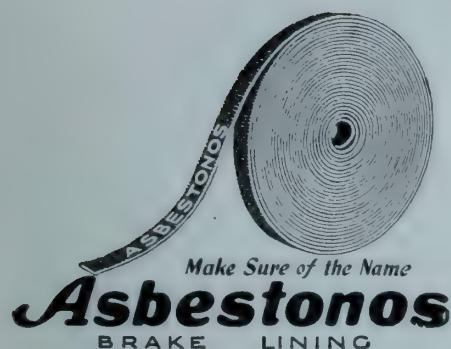
Quoting Mrs. Hollander further, "However, it would seem that there should be a much stronger appeal to women in all newspapers and magazines advertising for the sale of automobiles—that she should be given credit for as much intelligence in the selection of an automobile, at least, as her layman brother, who doesn't know any more of the technical parts than she herself."

There is quite a wide difference of opinion among automobile manufacturers regarding woman's influence in closing the sale. In order to secure up-to-date data on this subject, I sent out

(Continued on Page 32)



# Entirely Canadian



The asbestos used is carefully selected from Canadian mines—it is interwoven with brass strands—for wear—then impregnated with a special compound—to resist oils and greases.

All in Canada by Canadians.

*Asbestonos is the only ALL Canadian Brake Lining.*



THE ASBESTONOS COMPANY  
EAST BUGHTON, QUE.

*Sole Selling Agents*

**Richardson & Bureau**  
Montreal



## LARGE PERCENTAGE OF SALES

(Continued from Page 30)

a questionnaire quite recently to 100 greater New York sales managers affiliated with the automobile industries on the subject of the psychology of selling cars to woman, and in tabulating the returns find that this representative group in your industry consider that 75 per cent. of retail sales are influenced by women.

If we take into account the high per cent. of feminine influence and also her high standards in buying cars to-day, smartness, durability and practicability, we will not underestimate the great place she holds in the motor industry.

### Influenced Car Design

She asked for simplicity of line in motor cars, and her request has been granted. She is also responsible for the luxurious fabrics being used for the upholstery; man would have continued to use leather until Doomsday if she hadn't come to the rescue; she has a habit of demanding the accessories that give cars an air of discrimination and conservativeness. And we must remember that Milady has been a big factor in developing almost to a point of perfection the closed car. In the returns from the sales managers' questionnaire on the question "Are you selling more closed cars or open ones to women?" 65 per cent. stated closed cars indicated that the number of sales has increased over last season..

If woman seems to be the determining factor in closing the contract—then why isn't she being more strongly appealed to in the advertising copy? !!!

Many men in your industry will answer by saying—we have not found it necessary to appeal to them as a class apart, we consider both sexes on an equality basis. Very well—but isn't it true that women prefer to be treated as individuals, and have their judgment appealed to?—of course, this is done by Friend Husband before the contract is signed—but her final choice could be influenced by the appeal that has been made to her direct through advertising copy. Men and women are not fundamentally different in mind or in character, but we must remember that their differences in development are largely the result of training and environment. It is the unanimous opinion of specialists on advertising copy for women "That they are influenced by emotions and by the ideas which are associated with, but often not directly but rather conveyed by the illustrations, words and other symbols used in the advertising message." What a golden opportunity the automobile industry as a class has let slip by! Think of the human-interest copy supplemented by appropriate illustrations that could be used in appealing to women. This appeal would aid materially in closing the sale with woman via husband. When preparing copy for women it is well to remember that the text is less impor-

tant (but if it is well set up she will read it) than the illustrations, especially when they are in color. The gentler sex enjoys the personal tone, and since their esthetic sense is highly developed, they appreciate advertisements that are well balanced and that make for artistic beauty.

### Appeal to Women Through Advertising

Why couldn't advertisements be developed that convey a message to both Milady and her Lord and Master—Appeal to her through the illustrations (and be sure the artist shows one of her sex at the wheel) then write the copy for him.

If more "Reason Why" copy had been addressed to women this year, more single women would be the proud owners of cars to-day. The replies to the question "are you selling many cars to single women this season?" the replies would not have been 100 per cent. No. There are thousands of single women in Canada to-day who do not own cars simply because no one has tried to sell them. They think of a car as man-made, so complicated that they couldn't drive it, that its purchase would mean the additional expense of a chauffeur, heavy tire bills and expensive up-keep—that it is a far greater liability than an asset. Here is another golden opportunity for interesting new sales prospects through national advertising! Suppose a tired business woman picked up her favorite magazine and, in running through the back of the book, found a piece of copy headed: "Vacationing the year round." Would she read the text that followed? Yes, she's interested in getting more play in her busy work-a-day world. She is also interested in "How Never to Grow Old." If somehow the appeal conveyed the idea that those women who are getting old and indifferent and dreary inside, with no thrills and no sparkle, are the ones who have no avocation, make yours motoring!

In looking over some of the motor car advertisements this season, some of the following phrases would make a strong appeal to the feminine mind—"traditional dependability," "cleverly concealed compartments." We might term this chatty or conversational: "Unusual beauty of line"—"Heavily cushioned"—"Restful"—"Luxuriously appointed" and "Modish." Some of these figurative expressions bring at once to the mind pleasant associations.

So many women buy papers for the ads—if she were addressed in the "Motor ads" she would study them quite as religiously as she does the other copy, especially prepared for her.

Just a word about dealer advertising. Often copy has been sent to him that didn't appeal to him, and therefore, in his opinion, it wasn't effective. Wouldn't copy appealing especially to the woman motorist make a most favorable impression on him?

Manufacturers of products used by women have been gaining her attention

by exquisitely wrought brochures. Many of these are what might be termed "Personalized Booklets" (the name of each woman on the cover). If the pamphlet contains real information and is presented in a dignified, clear and forceful manner, not too saturated with selling atmosphere, it is bound to make a favorable impression, and if cleverly illustrated it will get 100 per cent. attention. In preparing booklets of this character—selling atmosphere must be created, and if this is supplemented by historical allusions it gives an air of distinction to the product being advertised. There is a need to-day for a "Motor Women's Directory"—Operation: Clutch (smoothness). Care: Brakes, Lubrication, Water, Tire Inflation, Non-freeze finish—such data would aid her in becoming better acquainted with the mechanical parts of the car, or at least call them by their right names.

If woman is a 75 per cent. in the purchase of motor cars, why shouldn't she be entitled to a little volume all her own—and we must not forget that her keen eyes can detect and her deft fingers remedy a loose nut or faulty electric connection in half the time Friend Husband can do it.

Then there is a great need for a brochure on "Motor Manners"—Self-confidence, Necessity of conforming, Instruction on traffic customs, Application to business. Why is it men say that they can always tell when a woman is driving a car by the way she honks—perhaps she needs some lessons in "Motor Manners."

Just as there is a strong appeal in a brochure, so there is in the engraved invitation—it need not be a deckle-edged antique stock or printed in black and red, but if Milady receives an engraved invitation to inspect new models she will be more responsive to selling talk.

Just a word about educational films, supplemented with lectures, as a direct selling aid to the feminine motorist. The psychological secret of the selling power of the motion picture lies in its ability to present technical facts in such a simple, graphic manner that the most untrained eye can easily grasp. My reasons for confidence in the future of the screen as a means of disseminating clear-cut, logical information are based on a series of experiments I conducted behind closed doors at Columbia a few years ago with films as a teaching tool, and since that time my actual use of films, supplemented by lectures before adult audiences. Films, supplemented with a lecture, afford an ideal method for getting and fixing the attention of the nerves.

If Canadian automobile manufacturers are going to aid women motorists in becoming more proficient at the wheel, they will create what we might call a Woman's Service Bureau. This bureau would not only aid in supplying women owners with service helps, but assist in building up goodwill among owners as well.

—Reprinted From "Motor."



# WHY IT PAYS TO SELL

*For prices and terms of  
Overland parts. Write  
SERVICE DEPT.*

*For particulars as to open  
territory for sales, write  
SALES DEPT.*

**Willys-Overland Limited**

*Head Office and Factories:  
TORONTO, CANADA*



The owner's safety, as well as the proper functioning of his car, depends on the parts being made to the high standards of the Overland.

Only by supplying genuine parts, therefore, can genuine service be rendered to your customers.

The man who builds a repair business on profits from pirate parts is building on sand.

Consider the owner's safety every time—sell genuine service and you buy goodwill!

## Not an Accessory, But a Necessity

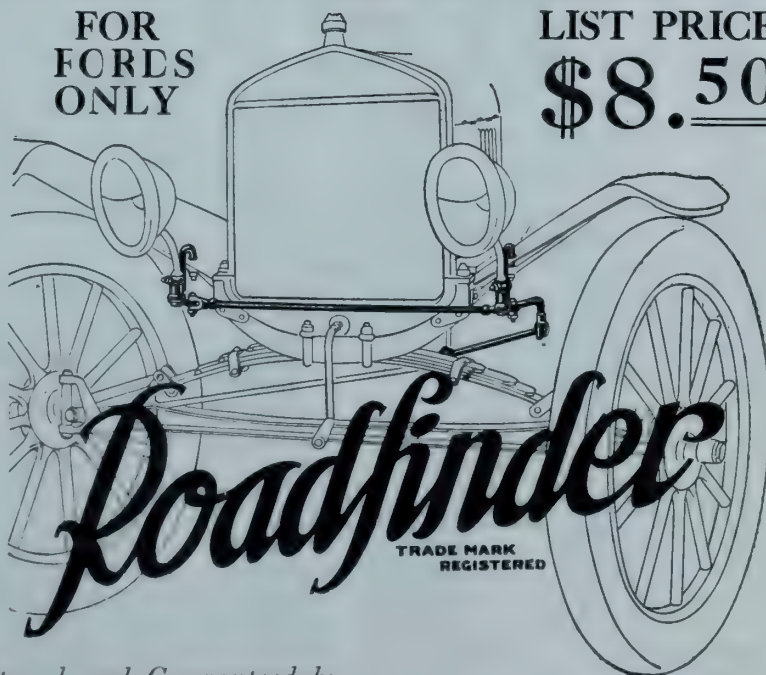
### *Finds the Road*

It turns the lights of your car with the wheels so that you always drive in the light and not out of it when turning corners, taking curves, meeting or passing traffic.

Roadfinder means safe night driving, by preventing accidents. Roadfinder finds the road, always—anywhere. It is a genuine necessity.

**FOR  
FORDS  
ONLY**

**LIST PRICE  
\$8.50**



**Dealers Wanted Everywhere.**

*Manufactured and Guaranteed by*

**ROADFINDER LIMITED - HAMILTON, CANADA**



# Shop Notes for the Garage Man

## Suggestions for Truing Wheels and Axles

By G. BARRETT

IT IS a common thing on our streets to-day to see a car travelling around with a rear wheel running out of true. This is due to misadjustment of the rear axle, caused by an accident of some sort, or to natural wearing of the parts.

At Fig. 1 we show a view of one half of a rear axle. The parts of an axle that are most frequently put out of alignment are marked at A and B. A sudden swerve at the moment when the car strikes a stone or lump in the road may cause a bend at B. The axle may be bent at A by catching the curve of the sidewalk while the car is carrying a heavy load; a slight kink at the extreme end of the key-way will throw the wheel considerably out of true.

It has also come to the writer's notice that wheels are often thrown out of

just to put a light pressure on the centers while spinning the job around by hand to chalk the portion that is out of true.

### Straightening Small Shafts

A method used in straightening light

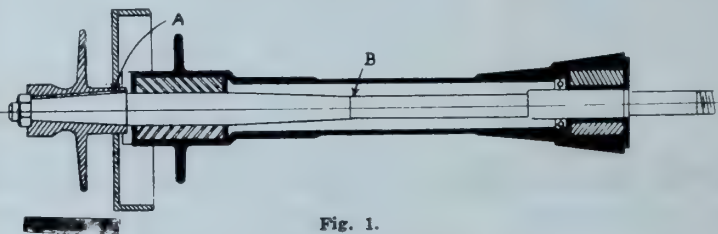


Fig. 1.

shafts and valve stems is outlined at Fig. 4. Place three pieces of square steel between the jaws of a vise, hold

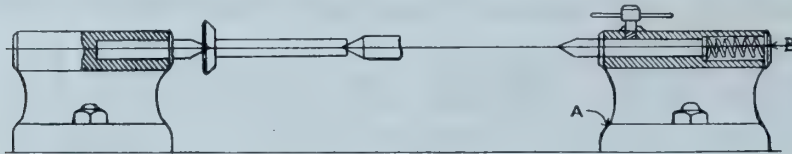


Fig. 3.

alignment by the key-way at the end of the shaft becoming worn and pulling the wheel in the position shown at Fig. 2. The view is exaggerated, for as a matter of fact, it only requires to be out a little on the taper of the bore, as a very slight amount there will be multiplied considerably at the rim, causing a great deal of wobbling.

Repair garages not lucky enough to possess a lathe will find it very useful in straightening axles to have two special tail stocks as shown at Fig. 3. These

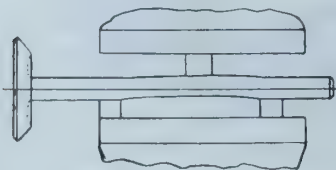


Fig. 4.

could be placed at any convenient part on a bench or on a special stand. The head stock A is made moveable for adjustment to any length according to the particular part to be straightened. The compression spring B is of such strength

the valve stem or shaft to be straightened in position shown in sketch, then by putting a little pressure on the vise lever the piece may be brought back to its normal position. Heavier parts may be done in the same manner after applying heat to the bent portion.

### METHOD OF TIGHTENING LOOSE SPOKES

During the hot summer months wooden automobile wheels often get loose at the part where they are held by the hub flanges, causing a cracking sound when the car is in motion. This can be remedied by removing the hub from the wheel as shown at Fig. 5. The loose spokes may then be tightened by driving sheet steel wedges into the open spaces. In some cases where the spokes are very loose it may be better to use wooden wedges. These wedges should be made straight with a slight taper at the end which will help while driving the wedges into place. The wedges being straight, they will stay in position when driven home. They should also have a good

coating of glue and be made the width of the spokes. Any protruding edges can be trimmed off with a chisel. In order to make a good job judgment should be used regarding the open spaces, for by applying too thick a wedge the degrees of the miters will be put out and there will be no benefit from the repair. It is better to divide up the spaces as shown at 1, 2, 3 and 4 all the way around if the spaces are open enough to permit it. After applying a coat of priming paint and replacing the hub, the wheel will be in perfect condition.

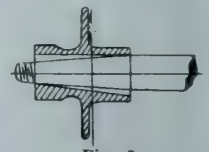


Fig. 2.

### REMOVING STAINS ON LEATHER

An exceedingly simple and effective method for removing grease stains from leather has just been developed. Nothing is more unsightly than the leather upholstery of a car, a handbag, shoes, traveling baggage, or in fact any leather article that has been stained by coming in contact with oils of all sorts, and similar products, and there is perhaps nothing more difficult than leather to cleanse of these spots. Trying to remove the spot in the ordinary way by rubbing the stained leather with a rag soaked in gasoline or benzine results only in spreading the spots further. However, when a rubber cement is used, of the ordinary kind sold on the market

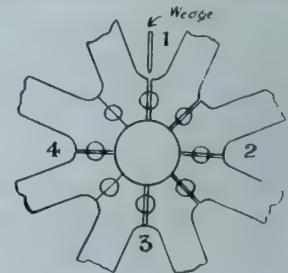
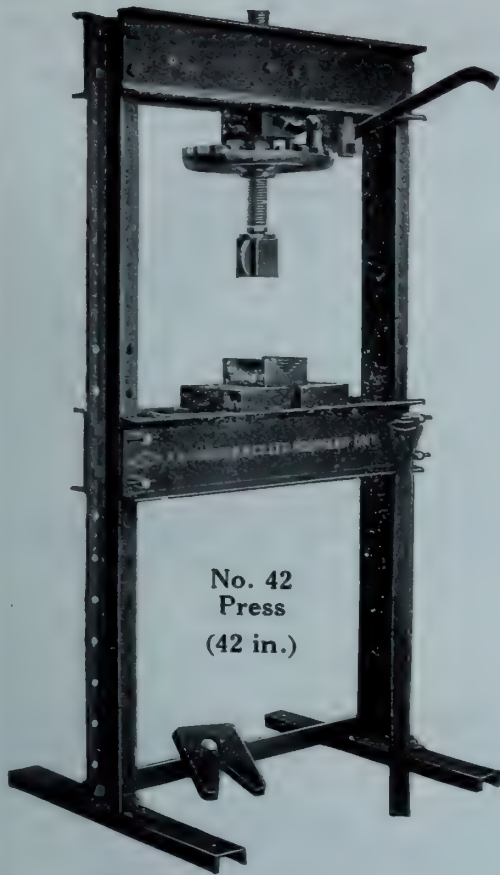


Fig. 5.

for repairing or glueing rubber, highly satisfactory results can be obtained. The liquid in which the rubber is dissolved must also be able to dissolve the spot, and as most rubber solvents are also fat and oil solvents, this condition offers no difficulty. A rubber cement made with gasoline or carbon disulphide, can be used with excellent results. The cement is merely smeared





No. 42  
Press  
(42 in.)

# JARDINE

## 25 TON PRESSES

Absolutely Guaranteed

These presses will stand any strain with lots to spare. Price, 32-inch, \$95.00, (with Rack Press Attachment, \$133.00); 42-inch, \$110.00, (with Rack Press Attachment, \$145.00).

## Universal Tire Changer

The only machine on the market which will handle wire wheels. You can save a lot of time with the Jardine Universal Tire Changer. It soon pays for itself. The price is \$55.00.

We are also manufacturers of Floor Cranes, Wrecking Cranes, Engine Stands, Taps and Dies, Grinders, Blowers, Forges and Drilling Machines.

Catalogue G-22 will be forwarded on request.



Tire Changer  
For all styles  
of detachable  
rims for pas-  
senger cars.

## A.B. Jardine & Co. Limited

HESPELER, ONTARIO



## Trailers to Meet All Conditions

The nature of the business, the truck in use, and road conditions determines the trailer equipment you should use. We have trailers to meet all conditions. We will advise you on the best trailer for your requirements.

TYPES AND CAPACITIES	
Four Wheel, reversible and non-reversible	1 to 7 tons
Semi	2 to 10 tons
Pole	2 to 10 tons
Two Wheel	1 to 3 tons

**Dominion Truck Equipment Co., Ltd.**

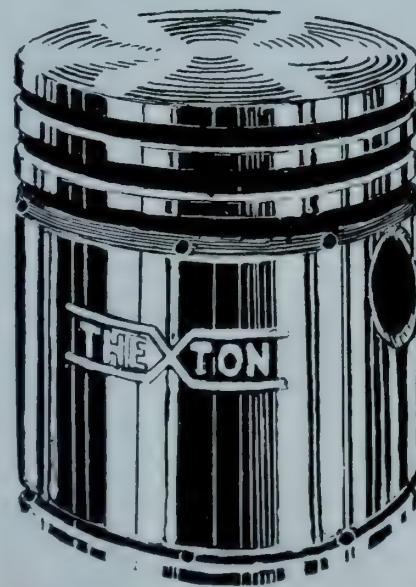
Established 1914  
Kitchener, Ont.

Catalog  
on  
request



## REPLACEMENT PISTONS

and  
**Piston  
PINS**



**Largest  
List in  
Canada**

*If your Jobber  
is not handling  
them write us  
direct for Full  
Information.*

**Thexton Machine Works Ltd.**

736 Dundas St. E. TORONTO Phone Main 4233W



over the spot on the leather, and when the film of rubber is just about dry, it is easily peeled off. Almost every time on first trial, the spot comes off with the rubber. Sometimes, the operation may be repeated once or twice. The rubber cement can be made by dissolving one part of unvulcanized rubber in ten parts of the liquid.—The Industrial Digest.

### AN INEXPENSIVE TOWING POLE

By D. A. Hampson

FOR a good portion of car towing, the towing pole has points of superiority over the rope or wire cable. Ropes break, inexperienced men cannot tie them so they hold or so they can be readily untied; the wire cable is superior to the rope in many respects but when its gets cut, it cannot be easily repaired and the frayed ends are risky to bare hands. Neither the rope nor the cable are safe to use on a car that has lost its braking system.

The cost of a towing pole prevents its adoption to greater extent. But all garages have old parts and miscellaneous junk around and they all have workmen who are idle at times—with pay. The towing pole shown herewith is a first-class job and was constructed by one garage under the conditions named in the previous sentence.

To the back cross member of the tow car were riveted two angles. Previous to this a piece of  $1\frac{1}{2}$  in. shaft was turned down for  $\frac{1}{2}$  in. on each end and riveted over on the back of the angles; this assembly is the only part that is permanently secured to the car.

Over the  $1\frac{1}{2}$  in. shaft may be seen clamped an ordinary connecting rod having a bore of the same size. This was cut off a short distance up and welded to the stem of a universal fork. The mating universal fork stem was upset (enlarged on the end by forging) and this butt end turned to drive inside a length of pipe. The turned end is fastened by cross pins and welding. In this case the pipe was three feet long,

but any desired length could be employed.

At the other end of the pipe a similar upset end is fastened. The stem at the far end of the universal joint is left full length and forged out flat, then bent to L shape. This offers a better means of attaching to an axle of the car being towed. Two bolts and a length of steel plate complete the clamping arrangement.

All the parts shown are such as may be found in any garage's junk pile. Assembled, they form a towing pole of unusual virtue. The double universal joints and the connecting-rod swivel provide for all sorts of road conditions and driving uncertainties. If, for any reason, it is desired to use a rope instead, the pole may be removed by taking off two nuts or it may be swung upwards and lashed fast for the time being—a good method is to have a hook permanently attached for this.

### CARS AT CANADIAN NATIONAL

(Continued from page 6)

doubt went back to their several service rooms with a new conception of the place, of the service station and its function in the industry.

The tractor exhibits from a numerical standpoint were disappointing. There were only four makes shown. The exhibits were interesting and showed tractors hitched up to every kind of tractor implement. There were no new models and whatever changes were made they were of an insignificant nature.

Monday, August 28, was Automotive Industries day. At the luncheon given to the men of the automotive industries by the directors of the Exhibition, the Hon. F. C. Biggs, Provincial Minister of Public Works, was the principal speaker. The speaker outlined the Government's road plans and said that Ontario was past all point of argument that the old gravel and water bound roads would serve traffic in congested sections. Hon.

Mr. Biggs stated that this year there would be about 125 miles of pavement laid on Provincial highways in Ontario. All paving this year and last year, he said, was within suburban areas, the development of which, it was felt, would give immediate benefit to the greatest number of people.

President Sam McLaughlin of the Ontario Automotive Industries Association, traced the tremendous growth of the automobile industry from the tens of thousands to the half-billion mark. The automobiles of Canada, he estimated, annually transported five times the number of people that the railways did, and he predicted a doubling or tripling of the number of cars the next few years. Canadians had \$300,000,000 invested in motor cars, which, with another \$100,000,000 invested in private garages, brought the owner investment up to \$400,000,000, and the entire automotive investment of the country, manufacturer, dealer and owner, to a total of over \$600,000,000.

Dr. P. E. Doolittle, president of the Canadian Automobile Association, pointed out to the members of the industry and directors of the exhibition present that Canada needs to be advertised in the United States. He suggested that a model motor camp for U. S. tourists be erected at the exhibition. This camp could be subdivided into States, and prizes could be given for the most complete camping outfit and for those who had toured the farthest to the "Ex."

### SIMPLIFIED ACCOUNTING PLAN

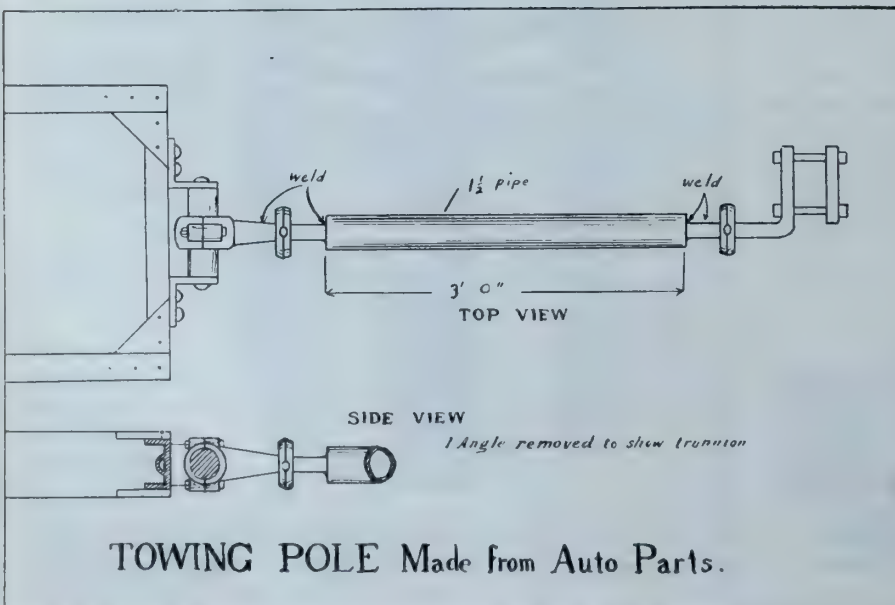
(Continued from Page 21)

Your customers' statements are the means through which you collect for goods sold on credit, and issuing them is the first important month-end job for the retailer. Whatever method of making up statements is used, they should in every case be checked against the ledger before they are mailed. Then you are sure that the balance on each statement corresponds with the balance on the ledger, which already has been proved correct.

Accurate, prompt statements bring in money. Money increases available capital. Available capital cuts down interest charges at the bank, increases the buying power of the store, permits the taking of more discounts on merchandising bought. More discounts taken mean more profit made, and increased credit with wholesalers.

The accounts payable, or creditors' ledger is similar in operation. As in the accounts receivable ledger, a separate sheet is kept for each of your accounts, and a daily balance is extended on each account.

This feature, with the total of the money you owe obtained each day, is of great value. The total amount you owe is an important factor in your credit standing with your banker as well as with parts and accessories manufacturers. Under the Simplified Accounting Plan you get this figure daily.



TOWING POLE Made from Auto Parts.



## GASOLINE MOTORS \$50.00 and up 4 CYLINDER — 4 CYCLE

20 horsepower and up, these motors are taken from high-priced automobiles, and can be used for any purpose where power is required. Hundreds of these motors in use all over Canada are giving satisfaction in motor boats, tractors, cutting boxes, sawing wood, running machinery, etc. We also carry the largest stock in Canada of slightly used parts for motor cars of all kinds.

Satisfaction or refund in full, our motto.

**Shaw's Auto Salvage Part Supply**  
927-31 Dufferin Street  
TORONTO

## WedgeRite Piston Rings

The standard by which all rings expanding in the groove are judged. WedgeRite piston rings today are better than ever and in addition to this the WEDGERITE PISTON RING is first to reach a SCIENTIFICALLY correct degree of FULL FLEXIBILITY insuring a uniform wall and groove pressure.

*Manufactured by*  
**The Piston Ring Co., Limited**  
Montreal - Canada



## BIRDSELL CLOVER HULLERS 65 YEARS IN THE FIELD

In these days of high costs you must get RELIABLE GOODS for money spent or your WASTE will consume all of your profit.

There was never a time when "QUALITY" has been in such demand. In Quality and Honestly constructed goods lies the hope of industry today. Buy wisely and you will have economy.

BIRDSELL HULLERS have years of experience behind them. They are not an experiment. They are built well and will last a life-time.

They hull and clean Red Clover, Mammoth Clover, Alsike and Sweet Clover seed.

BUILT IN THREE SIZES FOR CANADA

**Birdsell Manufacturing Co.** Foot of  
Toronto, Canada George St.

Each Tire Hangs Alone



Equip  
Your  
Store  
With

## MANKEY TIRE HANGERS

Dress up your store and save labor. The cost is little.

**ASK YOUR JOBBER**

Deliveries f.o.b. Montreal, Toronto, Winnipeg, Vancouver.

MOTOR NECESSITIES COMPANY,  
Somerset Bldg., Winnipeg.

Send through my jobber one No. 2 Rack for 15 days' examination. I will remit \$37.35 or return the rack at that time without further obligation.

Name .....

Address .....



# New Automotive Equipment

## HASTINGS REAR CURTAIN LIGHTS FOR FORDS

These rear curtain lights are made of glass and can be put on in a few minutes with the aid of a screw driver. The mak-

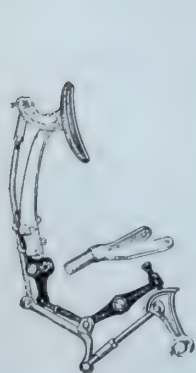


Hastings Rear Curtain Lights

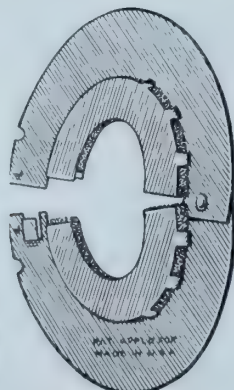
ers say they will not sag or tear the curtain and are easily kept clean enabling the driver to have a clear rear view. Made by the Hastings Mfg. Co.

## B. & C. NEUTRAL PEDAL

The purpose of this pedal is to provide a positive neutral position in operation, relieving the driver of all guesswork. The emergency brake is made independent of the operation by taking away the cam which has controlled the clutch release through the emergency lever; the lever has now only the rear end to provide for. The emergency lever may now be left in the old position on the floor of the car, or if used regularly to lock the car when stopping, it may be arranged to stand in a convenient position within easy reach of the hand. The new pedal is substituted for the regular one, and a hinged foot plate is used in place of the fixed one, so that the connections back of the pedal may operate to control the position of the cam to maintain clutch release or neutral position. Made by the Burnham-Cote Co.



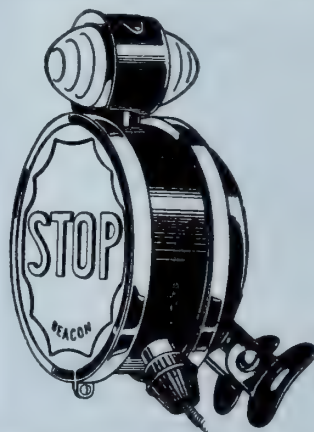
B. & C. Neutral Pedal.



Auxilo.

## BEACON COMBINATION PARKING AND STOP LIGHT

The parking light of this device is made in one piece connected with the stop light portion and held in position by a broad nickeled clasp. The stop light portion is of drum design and flashes red stop signal when the brake is applied by means of a switch carried underneath the car. The parking light shows red to the rear and white to the front and is fitted with a 2-candle-power bulb, effecting a considerable saving in storage battery capacity over the lighting of head and tail lamps. The shell of the Beacon light is made of high grade tempered rolled steel. The switch is steel encased and is entirely enclosed preventing dirt, etc., from putting it out



Beacon Parking And Stop Light.

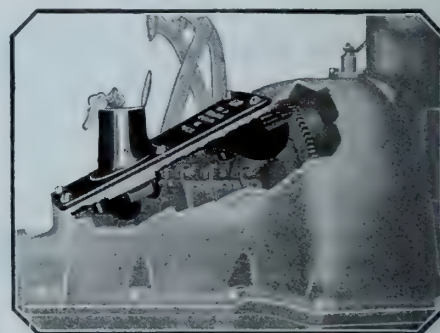
of order. Made by the Beacon Stop Lite Company.

## AUXILO

A frequent source of trouble and annoyance to Ford car owners lies in the tendency of oil to follow the crankshaft and work out of the crankcase onto the pulley which drives the fan and so to the belt. This saturates the belt and causes it to slip as well as baking into it and causing it to crack and break. To overcome this trouble the Burnham-Cote Co. have put on the market a device known as Auxilo. The device is made of steel, two parts being hinged and provided with a catch for positive locking in position on the crankshaft just where it emerges from the crankcase. It carries a felt gasket which is so held that its edges are free and open. The gasket is attached on the side next to the crankcase so that any oil working along the shaft is absorbed before it can reach the belt.

## REMY LOCKS FOR FORDS

This lock consists of a transmission case cover having on its under side a forged steel bolt and a malleable iron cross-bar. The bolt and bar are operated by a key turning in a locking cylinder which projects above the floor board of



Remy Lock For Ford.

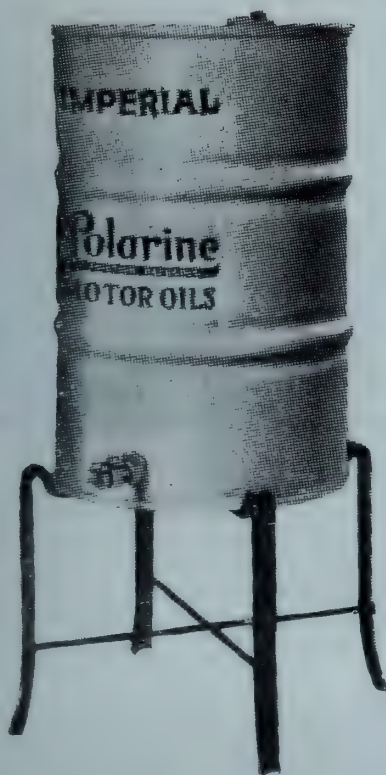
the car, near the foot brake pedal. When the device is locked, the bolt moves forward and engages the teeth of the fly-wheel, and the cross arm slides under the sides of the transmission case opening. This makes it impossible to start the motor or remove the lock. It fits into the top of the Ford transmission case and is installed by screwing it on in the place of the original cover. When installed the lock lid comes just above the floor board near the brake pedal. Made by the Hercules Mfg. Co.

## KENDALL PISTON RINGS

Kendall piston rings are of two-piece construction, an inner or expansion ring and an outer or packing ring. A special analysis of iron, the makers claim, is used, which is improved by a special returning process on the expansion ring, producing what is termed an 'even-radius'-type ring, having equiradial expansion every thirty degrees on the entire circle, all points having equal pressure. A non-clogging oil wiper is also provided in this section of the ring. The outer or packing section is of softer non-resilient iron, being turned with an inner surface on a 55-degree angle, the expansion ring having an externally inclined face of the same angularity, thereby, it is claimed, relieving groove pressure and increasing pressure on the circumference, lengthening the life of the expansion ring. Made by the Kendall Engineering Corp.



# For Your Customers' Home Supply



The 15-gallon Imperial Polarine Steel Drum shown above is sold with or without the rack. It stands on end and occupies a minimum of floor space. Drum and stand are well made and nicely painted and will last for years. Can be furnished with a special, leak-proof, automatic faucet if desired. Complete unit supplied to dealers at less than factory cost.

Implement dealers find the 15-gallon Imperial Polarine Steel Drum an ideal package which multiplies the amount of their oil sales to every customer.

Think of the time, effort and expense you can save yourself by selling your trade a **season's** supply of the right grade of Imperial Polarine Motor Oils in this clean, neat, leak-proof package.

Think, too, of the convenience and saving which you can offer your customers as an inducement to buy.

Practically every automobile, truck and tractor owner in your territory is a prospect for one or more of these drums in the course of a year. It's to your profit and theirs to educate them to buy for their requirements **by the season.**

**A suggestion you can turn into profit**—sell a 15-gallon steel drum, filled with the right grade of Imperial Polarine Oil as recommended on our Chart, with every truck, tractor or automobile you sell. This means not only an extra profit for you but also the complete satisfaction of your customer with the unit.

It will pay you well to investigate the profitable possibilities of the new 15-gallon Imperial Polarine Steel Drum. Ask our salesman for the details or write to 56 Church Street, Toronto.

## IMPERIAL OIL LIMITED

*Canadian Company—Canadian Capital  
—Canadian Workmen*



### REED INSIDE MICROMETER AND HEIGHT GAGE ATTACHMENTS

Reed Small Tool Works has recently developed an inside micrometer with a lower range than former models. It is graduated to read to thousandths of an inch, has the usual half-inch run of spindle, with a measuring range from 2 inches to 32 inches. The rods fitted with hardened tool steel anvils adjustable for wear, are interchanged on the threaded stud at end of micrometer head and can be used in combination. A detachable handle is furnished and so arranged that the micrometer can be used for right or left handed work. The inside micrometer can be quickly transformed into a height gage by use of height gage attachments. By attaching a rod of proper length to the micrometer any desired range from 3 inches to 32 inches can be obtained.

The rod is inserted downward through the steel case-hardened base until the anvil finds the surface from which meas-



Reed Inside Micrometer and Height Gage Attachments.

urement is to be taken. A quick-clamping knurled nut, operated by the fingers, holds the measuring rod in a perpendicular position. The attachment is useful in obtaining the height of projections from plane surfaces. The V-shaped groove in the bottom of the base adapts the tool for use in cylindrical work, measuring distances between shafts, for alignment purposes, etc.

### REAMRITE REAMERS

These reamers are of the expansion type and are so designed that each reamer will expand to overlap the smallest size of the next reamer. The action of these reamers is much the same as that of a spiral drill. The cutting edges are supported to prevent chipping. The blades can be sharpened on a cylindrical grinder or on a lathe with the aid of an electric tool post grinder. Made by Cronin-Waddell Co.

### BEAR BRAND AUTO CABINET

This is an emergency gasoline, oil and water supply outfit which is fitted on the runningboard. The canteens, which are enclosed in a heavy steel cabinet, are constructed of galvanized steel. The

cabinet does not project beyond the edge of the runningboard. The oil and gasoline canteens are supplied with a metal disappearing spout, which is permanent-



Bear Brand Auto Cabinet

ly attached to the canteen. The cabinet is secured to the runningboard by bolts. Made by the Woolwine Metal Products Co.

### UNIVERSAL MOUNTABLE VENTILATOR

This ventilator is adjustable to any position and fits the cowl of any car. When closed the makers claim the ventilator is dust, air and water-proof. The tools required in installing, also screws, lock washers and nuts are furnished with the device. A rectangular section of the cowl is cut out with the special cutter and the ventilator fitted after holes for screws have been bored. There are no parts to get out of order and a deflector adjusted so that air is forced directly down on to the pedals and feet is a feature. Made by the Higbee-Orne Co.

### DEFIANCE LOCKS FOR FORDS

This is a loose wheel lock with a split bottom plate, comprising two separate parts which fit around the steering column and screw into the housing of the

lock. This prevents tampering with the gears from underneath. Turning the key raises the gear clutch above the lower pinion, throwing the steering gears into neutral. Thus the wheel is caused to revolve freely on the steering post, making it impossible to steer the car. A safety plunger prevents the device from being accidentally locked when the car is being driven. A seventeen-inch wheel with walnut rim and polished aluminum spider arms is furnished with the lock. Made by the Disco Electric Mfg. Co.

The Dominion Motor Truck Equipment Co., Kitchener, Ont., received an order recently for trailers for British West Africa.

Contract for the construction of new buildings at Leaside, to cost approximately \$1,000,000, has been awarded by the Durant Motors, of Canada, Limited.

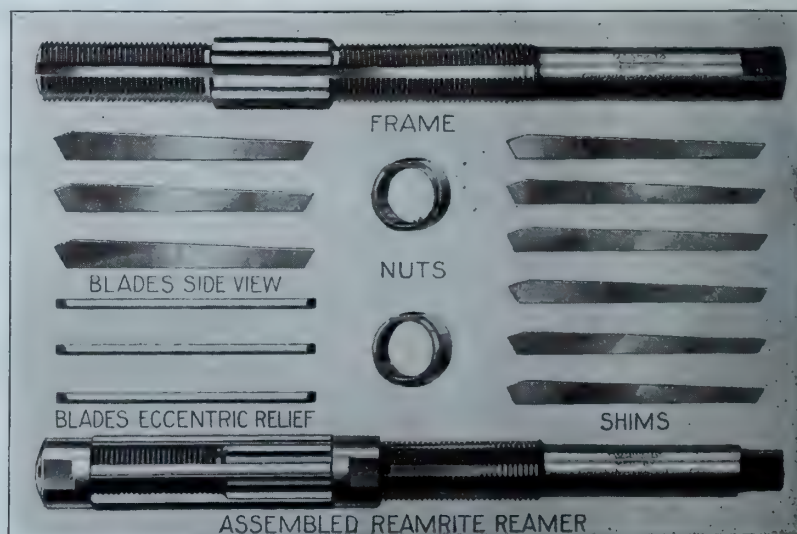
### ALL-IN-ONE FOLDING BEDS FOR FORDS

This equipment can be used in the Ford sedan or touring car. The bed rolls into a package 4½ in. in diameter by



All-In-One Folding Beds For Fords.

4 ft. long and weighs 14 lbs. The back of the driver's seat is removed and by the installation of the stringer the cushion can be shifted to a new position in the front of the car. Distributed in Canada by the Geo. H. Broughton Co., Toronto.



Reamrite Reamers.





## They Will Understand

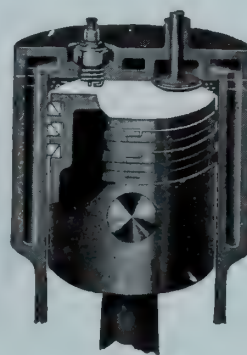
explain the functions of an Excellence Piston Ring to the Car owner, he will appreciate you doing so, he is interested in technical details as much as you are and cannot fail to be interested in the double expansion of an Excellence Ring.



There are hundreds of motorists who are looking for a Piston Ring such as this.

They will at once see that it affords them a more perfect seal and therefore much more power, if you have not already ordered Excellence Rings do so now and get them working for your clients.

We are rapidly popularizing these Rings through an effective advertising campaign that is creating a wide-spread demand for two-way-expanding Rings.

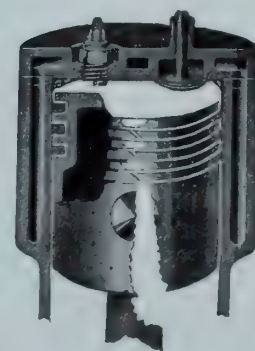


### The Right Way is "Excellence"

Perfect two-way expansion against the top and bottom of groove in piston and out against cylinder wall. Notice also the "Step-Cut" Slot which prevents leakage where the Ring joins.

### The Ordinary Way

not expanding two ways—will fit the cylinder wall—but won't be snug against the piston—so the power escapes all around the Ring, and through a slot which is not "Step-Cut."



## LAMONTAGNE LIMITED

Quebec MONTREAL Winnipeg

Or SAMUEL TREES & CO., Toronto



# Shop Equipment

## THOMASON UNIVERSAL WHEEL PULLER

The Thomason wheel puller is practically universal and will remove wheels from practically all cars with semi or three-quarter floating axles. This is accomplished by the use of hub adapters which are tapered on their outer circumference to fit the receiving bore and exert great clamping power on the hub. The taper allows quick insertion of adapters. A blank adapter allows threading for special hub caps. A steel ball imbedded on the point of the wheel prevents the dragging up of metal on the axle when the pressure is applied. It is constructed and scientifically reinforced to give strength enough to stand 7 tons' strain. The body is made of cast steel, the adapters of carbon steel and the screws of nickel steel. Made by the Shepard Thomason Co.



Universal Wheel Puller.



Little Giant Pipe Wrench.

## "LITTLE GIANT" PIPE WRENCH

The Little Giant wrench has the end opening feature which is familiar to users of machinists' wrenches. The advantages claimed for the wrench are ease of handling pipes in corners, close to walls, and similar confined places. The wrench has only three parts: a handle and jaw in one piece, which is drop forged and heat treated; a movable jaw, likewise drop forged and heat treated and a hardend steel nut. There are no springs, rivets, frame or pins, all these parts being eliminated. It takes hold and releases instantly at the option of the user. The wrench has a double set of teeth on the main jaw. The movable jaw can be engaged at the option of the operator with either of these sets of teeth with consequent lengthened life. On the large sizes, 14-in. and greater, two additional sets of teeth are provided, making four in all, and the movable jaw can be reversed to engage these additional sets of teeth, which are below the adjusting nut. This is useful in connection with certain classes of work, besides practically quadrupling the life of the tool. It is made in 8, 10, 14, 18 and 24-in. sizes, of which the three smaller sizes are already on the market. Made by the Greenfield Tap & Die Corporation.

## HYRATE VOLT CHECKER

The Hyrate volt checker is a volt meter with a zero centre scale reading to 3 volts on either side. It is equipped with two side spikes and a convenient handle. Heretofore in taking plain voltage read-



Hyrate Volt Checker.

ings of storage battery cells while on the charging line it was necessary to have a voltmeter with two flexible leads and prods and as the operator proceeded to make individual cell tests it was necessary to use both hands to operate the prods and lay same aside while recording the readings. With this device with its stationary prods and its zero centre scale only one hand is necessary to make the reading, leaving the other hand free to record the readings of the instrument, and furthermore in this connection, with the zero centre scale there is no danger of reversing the meter as the needle will swing either way. Another feature claimed for this device is its ability to promptly find "polarity." This can be readily determined as the needle swings always to the negative post and instructions are so recorded on the face of the instrument itself. Made by the Service Station Supply Co.

## NEW PORTABLE ELECTRIC DRILL AND STAND

A new light-weight ball bearing portable electric drill designed for the particular use of garages and auto repair shops has been placed on the market by The Cincinnati Electric Tool Company. The new drill has a capacity of ½ inch in steel. It weighs only fourteen pounds and carries an universal motor for use on either direct or alternating current. The drill is equipped with a Jacob's chuck, an extra detachable side handle and 10 feet of cable with Hubbell attachment plug. A mandrel with 3 in. x ½ in. grinding wheel to insert in chuck for light grinding, is furnished. The entire motor frame, switch handle and end handle are made of aluminum. The motor windings are fully enclosed, dirt and dust-proof and all working parts are protected.

A special bench drilling stand for use with its new electric drill has also been placed on the market. The stand makes it possible to convert the drill into a bench drill press in a few seconds' time. A cap and thumb screw locks or releases the drill. The stand has a column height of 24 inches, the maximum height from base to drill chuck being eight inches. The diameter of the base is 10 inches. The entire stand weighs 45 pounds. The drill bracket with the drill can be set at any point on the column and raised and lowered as desired. The weight of the drill and bracket is balanced by the spring in the rear of the column. The drill is kept in vertical alignment by means of a key on the bracket and keyway in the column. Depth of hole is regulated by an adjustable stop in the column.



## Time Saved In Shop Work Is One Way To Shop Profits

*"The shop that is properly equipped for its class of work has a better chance to make money than the shop that isn't 'all set.' "*

*Ray Sherman in "Shop Profits"*

The best brains in the automotive industry invented these machines and they are daily conserving profit in well equipped shops

K. R. W. Combination Machine—rebores, re-babbitts, aligns, reams and runs in crank shaft bearings.

Allen Test Stand—quickly locates trouble in starting motors, generators, armatures etc.

Wright Multiple Valve Grinders—grinds four Ford valves at once.

Manley Wrecking Cranes, Presses, and Engine Stands, Black and Decker Electric Drills.

*Write for our catalog of shop equipment*

### **CUTTEN & FOSTER LIMITED**

302-306 Church Street

Toronto



# July Shows Increase In Canadian Exports

## Gain of Twenty-one Per Cent. In Canadian Automotive Trade

Value of Exports for July Reach Total of \$1,818,359

EXPORTS of automotive products from Canada during July reached the total value of \$1,818,359, an increase of about 21 per cent. over the exports during June, which more than makes up for the decrease of 13 per cent. during the latter month as compared with May.

The markets of Canadian automotive manufacturers have not increased steadily as have those of American producers, says Automotive Industry, nor have they been stable in their demands. Since the first of the year, each increase in the value of Canadian exports has been followed by a decrease and each decrease by an increase, with the exception of March and April, when two consecutive decreases were recorded.

The number of passenger cars shipped monthly has fluctuated from 1,534 in January to the high point of 2,983 in March, July shipments of 2,812 cars valued at \$1,566,194 coming close to the March record and marking an increase of 24 per cent in number and 10 per cent. in value over passenger car shipments during June. There were 211 trucks exported at a value of \$99,052, an increase of 24 per cent. in number and 33 per cent. in value, while parts shipped reached the value of \$153,113, a gain of 51 per cent. in value.

The most notable increase in passenger car shipments during July took place in British India, where, in place of the average monthly shipments of 80 cars during the past months, 309 were imported during July, valued at \$130,062. This increased demand is due partly to the increased Indian import tariff.

New Zealand imported 380 passenger cars from Canada during July as compared with 169 in June, and Australia

took 824 against 805. The United Kingdom increased its imports of passenger cars from Canada to 512 in July from 368 during June, while South Africa maintained its quota of the previous month with 206 passenger cars. Argentina imported 74 as compared with 34.

Australia was again the largest importer of automotive products from Canada, having taken 112 motor trucks and \$61,240 worth of parts, as well as the largest number of passenger cars. New Zealand with 42 trucks reached second place in truck shipments.

## Plan To Take Maxwell Title To Chalmers

Production Will Be Increased If Plan Accepted

AN ANNOUNCEMENT was made recently by President W. R. Wilson of the Maxwell Motor Corporation and Chalmers Motor Co., to the effect that a basis has been arrived at between the bondholders committee of the Chalmers Company and representatives of the Maxwell Company for an exchange of bonds outstanding of the Chalmers Company for class A and B stock of the Maxwell corporation. If the plan is ratified by 90 per cent. of the Chalmers bondholders, it will become effective and Maxwell will take title to the Chalmers Company. With the consent obtained, steps would be taken at once toward refunding the Chalmers organization and placing it in a satisfactory financial position.

An outline of the production possibilities of the Chalmers Company has been drafted through to next July and with the financial plan effective, production would be started upon the scale outlined. This is considerably larger than production now which has been held to a point which Wilson determined was consistent with its financial position.

## CHANGES IN FORD CARS; ONE MAN TOP AND CHANGED SHIELD

A one-man top, slanting windshield and gypsy side curtains are now regular equipment on Ford cars coming through from the factory and assembling plants. It is understood that the change has been in contemplation for some time and production facilities are now completely worked out.

The slanting windshield, in addition to adding to the appearance of the car, gives increased comfort due to the fact that it can be opened and adjusted to any angle at both top and bottom. In making the change in the windshield, it has been possible slightly to change the cowl lines and the rake of the instrument board. No change in prices is made with the new equipment.

## J. A. PELLETIER SALES MANAGER OF ASBESTONOS COMPANY

J. A. Pelletier, formerly with Lamontagne Limited, Montreal, has severed his connection with that concern and has accepted the position of sales manager with the Asbestonos Company of East Broughton, Que. Mr. Pelletier has had extensive experience with the sales of automobile accessories and is well known throughout the jobbing and manufacturing end of that trade.

Mr. Pelletier will open an office and warehouse in Montreal for the Asbestonos Company, where a complete stock of brake lining will be kept.

## CANADIAN FIRESTONE WILL OPERATE IN SEPTEMBER

The Firestone Tire and Rubber Co., of Canada, the Canadian subsidiary of the Firestone Tire and Rubber Co., will be ready for production early in September according to a report just made public. The initial output will range about 1,500 tires a day.



Three types of light delivery and passenger bodies shown by Willys-Overland at the Canadian National Exhibition. They are mounted on the regular Overland Touring Car chassis, with slight modifications to suit the commercial bodies.



# Canadian Automobile Outlook Better Than Ever

## Past Year Best In Industry's History

### Price Cuts Stimulated Sales and Prolonged Season of Production

A COUPLE of years ago there were those who believed that the auto industry must be reaching the saturation point, yet the summer's trade just drawing to a close has been the most remarkable in the history of the industry, says The Financial Post. The spring found a demand for cars of all makes, and most of the manufacturers unprepared. It resulted in many buyers waiting for weeks for delivery. The order rush has shown but little let up, and at present the demand for new cars is greater than at this time in other years, according to sales agents.

It is generally conceded by leaders of the industry that the mid-summer cuts were a boon to sales. They brought about the belief that the early price cut was setting the price for next year and quite a number of orders were immediately placed. Thus prolonged production made up considerable of the loss sustained by the price cut.

It is estimated that Canada and the United States, the two greatest auto-owning countries of the world, can, with continued fair prosperity, absorb 2,000,000 autos yearly for the next five years and after that period there ought to be an increase in sales. New population should always mean new sales, replacements will mean a steady demand for new cars and there is always someone of the old population stepping out with his or her first car.

This year profits are said to have been relatively high. While certain costs remained up, there has been on the average a fairly general decrease, while prolonged production has resulted in higher profits towards the season's end. The position of the industry today is said to be stronger than ever before. The various concerns have their stocks well cleaned up and can now look to the coming year's business with a clear eye. As to 1923 costs, there is a difference of opinion. Some of the plants have announced a decrease in price. Some predict that others will fall into line and that by the time the 1923 cars are well on the market, the cut will have been almost general. Equally certain are those who see a little stiffening of the price, especially as the labor market does not seem to be too strong.

The consensus of opinion is that next year's business should be almost on a par with this; judging from the orders already booked prices should be lower and perhaps profits lower in proportion.

With profits as it is reported they have been this year, the latter is not undesirable.

### TO AID LEXINGTON OWNERS IN RECOVERY OF CARS

To aid owners of Lexington cars in the recovery of cars which are stolen, the Lexington Motor Co. has inaugurated a bulletin service.

The company supplies its dealers and insurance companies with printed forms upon which they are to report the theft of Lexington cars, giving name of owner, description of car and place from which it was stolen. The Lexington company will then fill out the necessary number of duplicate forms and mail them to all Lexington dealers and to insurance companies.

### HOW ONE SALESMAN WOULD HANDLE USED CARS

(Continued from Page 11)

more than allow a dealer in some cases more commission to help him on his used car deals. There have been proposals of enormous commissions to allow the manufacturer to buy back the used car and scrap it. But since it is usually possible to find buyers for used cars this plan will never be put into effect as long as the dealer can bear the burden. From indications the problem will possibly right itself within a short time because prices may come down to such an extent that an excellent car can be purchased for \$1,000. Sooner or later at this rate it means that the used car market will practically be confined to cars from \$100 to \$300 in price so that it will not present such a problem after all.

In the writer's experience the dealer who paid as much attention to his used car market as he did to his new car market had no trouble in keeping his floors clear of old cars. It is simply a case of the dealer realizing that he has a big problem on his hands in going ahead and planning to get rid of his trades in order to keep his capital from being tied up. The biggest trouble with the whole thing is the fact, as I have said before, that the dealer is not a merchant and has been trying to find some "solution" to the used car problem rather than putting a keen edge to his own sales effort. No one is going to help him out of the difficulty for the next two or three years. It is simply up to him to take in old cars on deals and then get rid of them. It is certain that if he sells any new cars he must take in old cars on his deals.

Some dealers have worked out a solution by concentrating on Ford, Chevrolet and Overland owners for the sale of new cars up to \$2,000. The thing has worked out as a hardship on car deal-

ers in the \$2,500 to \$3,000 class cars because they have been compelled to take cars in from \$1,200 to \$1,300 on the deal and the car of this class is the hardest to sell as a used car.

For the present the main thing for the dealer to do is to realize first of all that the problem is his own and that he must get his new car prospect; see that his old cars are in the best possible running shape and then get out and sell them.

### ALBERTA

CALGARY:—A new machine shop and Ford magneto recharging station, has been opened at 328, 9th Avenue E., by the Standard Garage.

The Hubbard Auto Repair Shop on 9th Avenue has been equipped to give tourist and local trade complete service.

The Alberta Battery Co., Calgary, manufacturers of storage batteries, have recently added radio batteries to their line.

The Ruttle Motor Co., Calgary, have reorganized and opened a new workshop.

### BRITISH COLUMBIA

VANCOUVER:—The Hayes-Anderson Motor Co. have put on an advertising campaign for motor busses. They are making a special appeal to communities.

### ONTARIO

HAMILTON:—Livingston Bros., King Street, have been appointed agents for Chevrolet cars.

LONDON:—A garage to cost \$25,000 will be erected here by J. W. McLaughlin.

PORT ARTHUR:—Fire caused considerable loss to the Sellers and Jones Garage recently. The damage will run into many thousands. Insurance covers the building and cars.

LISTOWEL:—McIntyre and Melrose are new Ford dealers here. A new garage is being erected. A complete stock of parts will be kept.

STRATFORD:—The Stratford Welding Works has been opened here. All kinds of automobile welding will be handled.

OTTAWA:—Dixon Motors have been appointed exclusive distributors for Columbia cars for Eastern Ontario and part of Quebec.

### SASKATCHEWAN

MOOSE JAW:—The staff of Gray-Campbell Ltd., Gray-Dort dealers, met recently to entertain F. J. Whally who is partially severing his connection with the firm.



# CANADIAN AUTOMOTIVE TRADE BUYERS' DIRECTORY

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McLaughlin Motor Car Co., Ltd., Oshawa,  
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Earl Motors Inc., Jackson, Mich.

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Canadian National Carbon Co., Toronto.  
Cuttan & Foster, Toronto.  
A. B. Jardine & Co., Ltd., Hespeler, Ont.  
Kemp Metal Auto Wheel Co., Toronto.  
Motor Necessities, Ltd., 231 Somerset  
St., Winnipeg.  
Pressure Proof Rings Co., Montreal, Que.  
Penetang Carriage Co., Penetang, Ont.,  
and Toronto.  
Richardson & Bureau, Montreal, Que.  
Shaw Auto Salvage Parts Supply Co.,  
Toronto.  
Thexton Machine Works, 736 Dundas St.  
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**BINDERS**

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Flexible Steel Lacing Co., Chicago, Ill.  
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Ltd., Hamilton, Ont.  
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# To Holders of Five Year 5½ per cent. Canada's Victory Bonds

Issued in 1917 and Maturing 1st December, 1922

## CONVERSION PROPOSALS

**T**HE MINISTER OF FINANCE offers to holders of these bonds who desire to continue their investment in Dominion of Canada securities the privilege of exchanging the maturing bonds for new bonds bearing 5½ per cent. interest, payable half yearly, of either of the following classes:—

- (a) Five year bonds, dated 1st November, 1922, to mature 1st November, 1927.
- (b) Ten year bonds, dated 1st November, 1922, to mature 1st November, 1932.

While the maturing bonds will carry interest to 1st December, 1922, the new bonds will commence to earn interest from 1st November, 1922, GIVING A BONUS OF A FULL MONTH'S INTEREST TO THOSE AVAILING THEMSELVES OF THE CONVERSION PRIVILEGE.

This offer is made to holders of the maturing bonds and is not open to other investors. The bonds to be issued under this proposal will be substantially of the same character as those which are maturing, except that the exemption from taxation does not apply to the new issue.

Holders of the maturing bonds who wish to avail themselves of this conversion privilege should take their bonds AS EARLY AS POSSIBLE, BUT NOT LATER THAN SEPTEMBER 30th, to a Branch of any Chartered Bank in Canada and receive in exchange an official receipt for the bonds surrendered, containing an undertaking to deliver the corresponding bonds of the new issue.

Holders of maturing fully registered bonds, interest payable by cheque from Ottawa, will receive their December 1 interest cheque as usual. Holders of coupon bonds will detach and retain the last unmatured coupon before surrendering the bond itself for conversion purposes.

The surrendered bonds will be forwarded by banks to the Minister of Finance at Ottawa, where they will be exchanged for bonds of the new issue, in fully registered, or coupon registered or coupon bearer form carrying interest payable 1st May and 1st November of each year of the duration of the loan, the first interest payment accruing and payable 1st May, 1923. Bonds of the new issue will be sent to the banks for delivery immediately after the receipt of the surrendered bonds.

The bonds of the maturing issue which are not converted under this proposal will be paid off in cash on the 1st December, 1922.

W. S. FIELDING,  
Minister of Finance.

Dated at Ottawa, 8th August, 1922.



## September Fiction

# Sorrowful Island

By Bertrand W. Sinclair

Treasure!!—————Yes!!

But not the hoard of shining gold the opening scenes of this vivid tale promise.

Round the hidden store so gruesomely guarded by the flesh-bare bones of an unknown pioneer, the author has staged a tale of a struggle for life and living on a lonely wooded isle off British Columbia's rugged coast which carries you interested and breathless to its dramatic climax.

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*Irresistibly funny*

*Ludicrously laughable*

*Excruciatingly humorous*

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Another stirring installment of this gripping serial.

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**MACLEAN'S**  
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Sept.  
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On Sale at all News Stands



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TRADE MARK



REG. U.S. PAT. OFFICE

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An Alligator joint is flexible and separable, and smooth on both sides of the belt.

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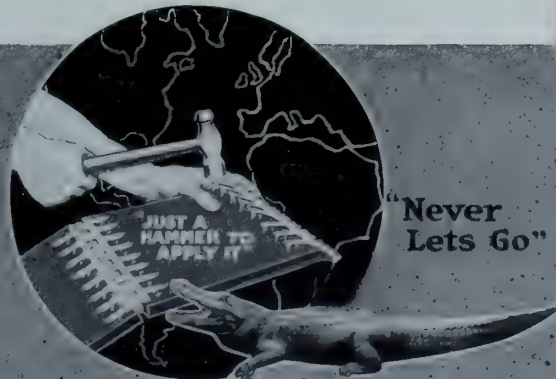
Literature, colored metal display card and jobbers' names upon request.

### Flexible Steel Lacing Co.

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*In England at 135 Finsbury Pavement, London, E. C., 2*



"Never  
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*Never  
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*Never  
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# Kemp Metal Auto Wheel

*A feature at*

**Toronto Exhibition**

**I**N THE Kemp Metal Auto Wheel, students of automobile and accessory construction find an invention that meets with their unqualified approval. Our booth at the Canadian National Exhibition proved particularly attractive to these men, who included manufacturers, executives, garage men and automobile owners. They studied the design with minutest care and the unanimous opinion was that the Kemp Metal Auto Wheel was **a real and distinct improvement in auto wheel construction.** In the opinion of experts it is a wheel which should supplant the unsafe wooden wheels now in popular use. The Kemp Metal Auto Wheel is lighter and stronger, and is not expensive. It does not break or bend. It affords safer driving over the roughest of roads, and prevents many accidents.

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*Our Agency Proposition is  
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Limited  
Listowel - Ontario



# Canadian Automotive Trade

Published Monthly by THE MACLEAN PUBLISHING COMPANY, LIMITED, TORONTO

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VOL. IV. No. 10

TORONTO, OCTOBER, 1922

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to Sell

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Did the farmers ask for this machinery in the beginning? They did not. A great deal of the hardest kind of selling was done by implement dealers before even the most necessary machines came into use. But in the process farmers became more prosperous and dealers made more money.

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Dealers who like to sell, and who can see profit in raising the farming standards of their communities, will find much to interest them in the terms of the new Case Dealer's Agreement.

## J. I. CASE THRESHING MACHINE COMPANY

Dept. Y216

(Established 1842)

Racine

Wisconsin

Factory Branch: Toronto, Ontario.

NOTE:—Our plows and harrows are NOT the Case plows and harrows made by the J. I. Case Plow Works Co.

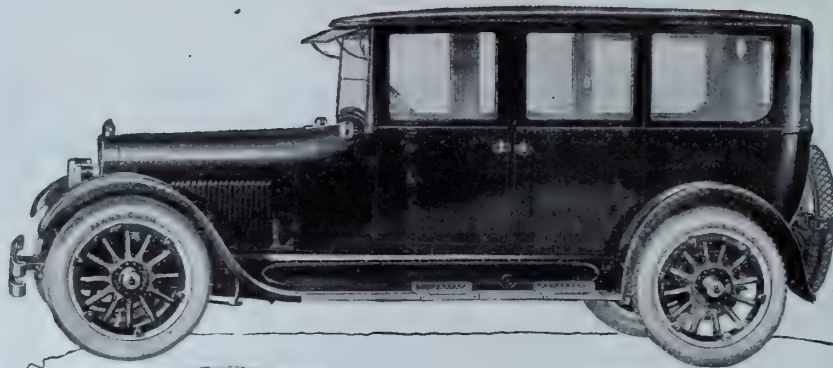
**CASE**  
POWER FARMING  
MACHINERY





October

Canadian Home Journal



The Standard  
of Comparison

## A Car of Rare Beauty the New McLaughlin Buick Sedan for 1923

Exquisitely appointed and of rare beauty, the 1923 McLaughlin-Buick seven-passenger sedan possesses the many special qualities which women for years have looked for in a motor car.

The body, by Fisher, is low and easy to enter. The interior is luxurious with rich plush upholstery and trimming. Deep, yielding seat cushions and springs of a distinctive type afford a new degree of restful riding comfort on any road.

The smooth, quiet McLaughlin-Buick Valve-in-Head motor is, as ever, a masterpiece of reliability. The steering wheel is placed at the correct angle for easy steering and responds to the lightest pressure of the hand. The control levers are at fingers' end. Every device for the comfort and convenience of the driver is provided.



## McLaughlin-Buick Dealers Have No "Dull Seasons"

Every day is a busy day for McLaughlin-Buick dealers. The complete line of fifteen models—a car for every season, every business and pleasure—together with the full co-operation of the McLaughlin Motor Car Co., Limited, makes selling the McLaughlin Buick line a steady, year round business. Why not have your name on file?

**McLAUGHLIN MOTOR CAR CO., Limited**  
OSHAWA, ONTARIO

*Subsidiary of General Motors, of Canada, Limited*

Pioneer Builders of  
Valve-in-Head Motor Cars



Branches in all  
Principal Cities



Member Audit Bureau of Circulations

# Canadian Automotive Trade

Vol. 4

OCTOBER, 1922

No. 10

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### THE MACLEAN PUBLISHING COMPANY, LIMITED

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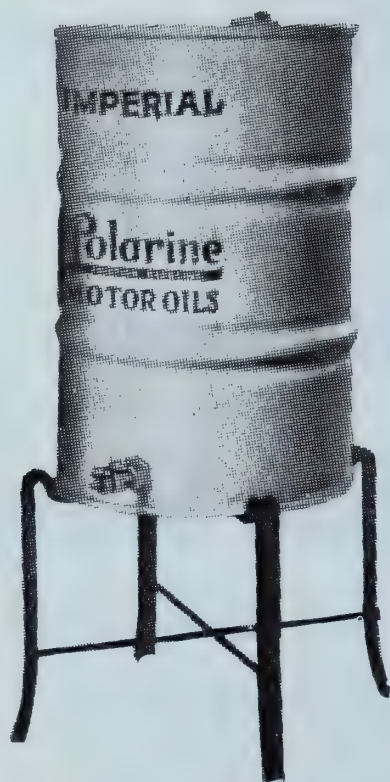
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The 15-gallon Imperial Polarine Steel Drum shown above is sold with or without the rack. It stands on end and occupies a minimum of floor space. Drum and stand are well made and nicely painted and will last for years. Can be furnished with a special, leak-proof, automatic faucet if desired. Complete unit supplied to dealers at less than factory cost.

Implement dealers find the 15-gallon Imperial Polarine Steel Drum an ideal package which multiplies the amount of their oil sales to every customer.

Think of the time, effort and expense you can save yourself by selling your trade a **season's** supply of the right grade of Imperial Polarine Motor Oils in this clean, neat, leak-proof package.

Think, too, of the convenience and saving which you can offer your customers as an inducement to buy.

Practically every automobile, truck and tractor owner in your territory is a prospect for one or more of these drums in the course of a year. It's to your profit and theirs to educate them to buy for their requirements **by the season.**

**A suggestion you can turn into profit**—sell a 15-gallon steel drum, filled with the right grade of Imperial Polarine Oil as recommended on our Chart, with every truck, tractor or automobile you sell. This means not only an extra profit for you but also the complete satisfaction of your customer with the unit.

It will pay you well to investigate the profitable possibilities of the new 15-gallon Imperial Polarine Steel Drum. Ask our salesman for the details or write to 56 Church Street, Toronto.

## IMPERIAL OIL LIMITED

*Canadian Company—Canadian Capital  
—Canadian Workmen*



# Canadian Automotive Trade

VOLUME 4

TORONTO, OCTOBER, 1922

NUMBER 10

## This Dealer Is Making Maintenance Pay

Repairing Cars is a Good Business and When Run on Right Lines  
Can be Made to Pay Handsome Profits. This Story Tells How  
One Dealer is Making Service Produce Profits

**T**O a great many automobile dealers the service end of this business is a constant source of worry. Somehow they cannot make it pay. It is a drag on their business and eats into the profits earned by the car sales and accessories departments. "If we could cut out the repair end without injuring our trade," they say, "we would do so, but since we sell cars we must give service even though it be given at a loss."

Repairing cars is a business and a good business, and when run along right lines can be made to pay handsome profits, as the story we are about to tell clearly shows.

W. E. Cane operates the Reliance Garage, London, Ont., and is doing a very profitable repair business. He does not sell cars, his establishment is organized along modern lines to sell service and accessories exclusively. In 1911 he entered the automobile field, servicing and maintaining cars and has continued along these lines and built up a paying and efficient organization.

### The Manager Really Manages

There is nothing startling or extraordinary about Cane's methods, he merely uses ordinary common sense and good business ethics.

In the first place, Cane does not work himself. That is to say he is not to be found underneath a car, working at a bench, or spending any of his time in the accessory department. He hires men to do that. If you want to find Cane he is generally to be seen in his office where he controls the business. All his time is devoted to managing. When anything goes wrong and his advice is sought the foreman of the department concerned

goes to him in his office where the matter is thoroughly discussed.

Each department stands on its own feet and has its own manager. The heads of the various departments, who are thoroughly experienced men in their line, have absolute control of their sections and answer only to Mr. Cane. With this organization, instead of dealing with each employee individually, the manager deals only with the department heads.

The organization is divided up into managing, accounting, counter sales (accessories), tools, service inspection, repairs, shop cleaning (janitor), gas and oil and service cars.

For each of these sections some one is responsible and that there be no misunderstanding, a chart of the organi-

zation has been drawn up and a copy posted in each department. There are on the staff, ten mechanics, two service men, two inspectors, two gas and oil men, one janitor, three stockroom men, one accountant, together with the service manager and Mr. Cane himself.

Orderliness and cleanliness characterize the entire establishment. A janitor is employed for nothing else but to see that floors are swept, windows are clean, and the place kept tidy.

When a customer comes in to buy accessories or enquire about the progress of his car he enters a reception room. This is a large room, decorated with plants and furnished with wicker chairs and a table. On this table is an abundance of reading material, such as the



These are the accounting and executive offices of the Reliance Garage. Cane believes in managing his business. If you want to find Cane he is generally to be seen in his office.





This shows a part of Cane's reception room and the automotive equipment department. A well-kept showcase carries a nice display of equipment. The customer, when he comes in to enquire about his car, as he sits in the chairs provided for his comfort, can view the accessories at leisure.

daily papers, magazines, etc. At one end of the reception room is the accessory department and at the other end the offices of the accountant and the manager, Mr. Cane.

The accessory department is arranged so that from where the customer sits he can see the equipment. A well-kept showcase carries a nice display of motometers, lamps, stop signals, tire gauges, etc. Equipment such as jacks, horns and wrenches is also displayed in full view on the top of the racks where the small parts are kept. Some accessories are also placed on the counter within easy reach of the customer. None of the more cumbersome parts are in view; these are kept out of the way in the stockroom in the repair department.

The front of the building has ample glass space which is utilized for display. Accessories, tires and car bodies are arranged behind the glass over the entire front. The display is attractive and is changed frequently.

#### The Repair Room

The repair room, which is the pivot of this business, is at the rear of the reception room and is 65 x 85. The floor is of concrete, and numerous windows supply good light. The equipment is complete in every detail.

Cane has a theory, which is put into practice, that if there is a tool on the market, or that can be made, for speeding up a certain job, it is installed. Ordinary hand labor is cut to a minimum.

The large equipment consists of a 16-inch lathe, 20-inch drill, sensitive drill press, running-in and burning-in machine, 18-inch disc grinder, three engine stands, floor crane, large floor jacks, overhead track, arbor press and an axle press. The small speed and precision tools, such as speed wrenches, re-bab-bitting jigs, aligning fixtures, twist drills, taps, dies, micrometer gauges, etc., etc., are kept in the tool room and can only be drawn out by the employee after depositing a metal disc bearing his number. Each man is supplied with six of these discs. When a man wants a tool he deposits a disc or check which is placed where the tool is kept and remains there until it is brought back.

Much time is saved in the repair department by the location of the service stockroom. This stockroom is right where the men are working and carries a complete stock of Ford and Overland parts. The men don't have to waste time going out of their department when a part is needed. This saves an enormous amount of time over a yearly period. All parts are drawn out by requisitions in duplicate, one copy remains with the stock-keeper, the other goes to the office to be entered against the job. Such things as waste, emery cloth, sand paper, grease and oil are all in charge of some man and can easily be drawn on requisition.

Nothing can be used or installed on a car without someone signing somewhere for it. All this keeps down the

costs and makes profits possible. Cane believes if he looks after the little things, the big things will automatically take care of themselves.

Although the Reliance Garage specializes on Ford and Overland service, repairs will be made on any car.

#### Uses Flat Rate System

The flat rate, or charging-by-the-job system, is in use. Cane was one of the first men to recognize the advantages of a fixed price for every job. In fact he has been operating this system since 1916, long before even many of the factories thought of it. The system was planned for Ford service—the Reliance Garage at that time specialized exclusively on Ford—and is now being extended to Overland.

Cane had no patterns to go by as there were few if any in existence; certainly there were none available. Prices were arrived at by watching operations over a yearly period. Only the work of the best mechanics was considered. Operations were standardized and prices determined by striking an average throughout the year, taking into account good seasons and bad seasons, overhead, etc.

When the system was in operation a short time, prices were finally adjusted to a standard basis.

As a new tool is installed resulting in the work being speeded up, prices are adjusted downwards, giving the customer better service at lower cost.



Mr. Cane is absolutely sold on the fixed price plan and would not go back to the old methods. It permits him to control his business; he knows where he is at, and does not have to guess. It enables him to have the best mechanics, no dead ones can stay long in a shop where jobs have to be done on schedule. Then the customer's bill is always ready when the job is completed. All disputing of bills is avoided. The customer knows what the repair is going to cost him for labor, and when parts are required requisitions are made out which he can scrutinize at any time.

#### Repair Shop Procedure

When an owner brings his car for repairs he is met at the service shop—a room at the front of the building where small repairs that take no more than fifteen minutes are made—by an inspector. The inspector examines the car, after taking the owner's instructions, and when all details have been discussed, a job order is made out, specifying every operation, which the customer signs. He signs, knowing what he is going to pay in dollars and cents for labor required. The job order is made out in triplicate and carries the usual information about customer's name, license number, etc., and when the car is wanted. The first copy of the job order goes to the foreman of the repair room and is the instruction for the whole organization. The second copy goes to the office, while the third is the customer's invoice when the job is completed.

When a mechanic starts on a car he makes out a time card. This card bears

the customer's name, operation, repair order number, license number, time taken, time allowed and rate. The mechanic's name is at the bottom of the card and when the work is finished it is inspected by the foreman, who then puts his o.k. to the card. When all the operations are completed and the foreman

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#### CHARGES BY THE JOB

W. E. Cane has been using the flat-rate system of charging for repairs since 1916, long before many manufacturers even thought of it. It has helped him to greater profits and increased efficiency. It enables him to control his business by eliminating all guesswork. It permits him to have the best mechanics, for no dead ones can stay in a shop where jobs are done on schedule. It avoids all disputes and gets bills out at time job is completed.

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gives his o. k. the job is turned over to the inspectors in the service room. There are numbers painted around the walls of the inspection room opposite which cars that have been repaired are placed. The foreman in sending his written instructions to the inspectors signifies that job number 6723 or whatever it may be is at number so and so. Matters are thus

simplified and in a shop where repair jobs average 35 per day, the possibility of mistakes and confusion is eliminated. The inspectors then report to the office that the job is o. k. and the customer is notified. After the bill is paid the release is authorized and the car is in the possession of the owner.

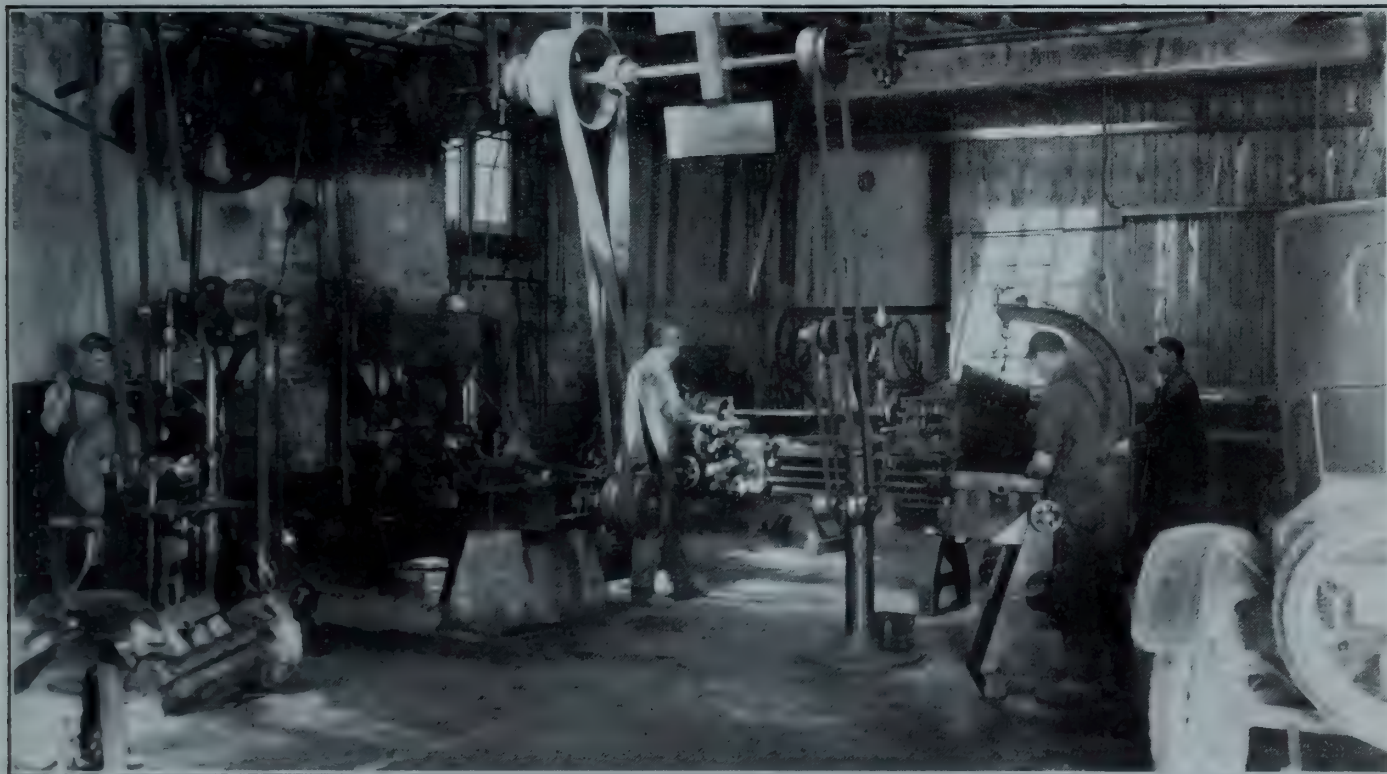
#### Follow Up System

The day following the delivery of the car a service man visits the owner to see that everything is satisfactory. If for any reason the owner is not satisfied every effort is made to put things right. Cane says he is selling service and satisfaction and nothing else, and one of the best ways of doing this, after painstaking work in the shop, is by keeping in close touch with customers.

"Our interest in a customer does not cease when the bill is collected," said Mr. Cane. "We are in business to help him get full service from his car and to that end we will go to all kinds of trouble, believing that it is in this manner only we can build up a satisfactory business."

#### Periodical Conferences

Besides the furniture in the reception room for the use of customers, there is a large sitting room and wash room upstairs provided for tourists. This room is also used for holding conferences between the manager and his staff. These conferences are held frequently and every detail of service is discussed. The establishment is supplied with a moving picture projecting machine and a "magic  
(Continued on page 48)



There are few repair shops equipped better than that of the Reliance Garage. Cane says the success of his business is due in great measure to the fact that he has cut out all hand labor and charges everything by the job.



# Brisk Sales Feature Montreal's First Closed Car Show

One Hundred and Ten Cars Presented Animated Sight—Dealers Report Many Sales—Will Make Show Annual Affair.

**W**E ARE simply delighted. It exceeded all expectations. The public flocked to the show and best of all it was a buying public. It was easy to tell the difference, and the crowds we were getting did not come out of mere curiosity but were attracted by a unique opportunity to see and compare the relative merits of a class of car that is steadily forging ahead in public favor—the closed car—the car of to-morrow." Thus, A. M. Jaques, Dodge Bros. dealer and vice-president of the Montreal Automobile Trade Association of that city, summed up the results of the first exclusively closed car show ever held not only in Montreal but in the whole of Canada.

In fact the closed car show is a novelty in any country. Last year saw the first one in the United States and that having been followed up by others soon attracted the attention of the wide-awake Montreal dealers who thereupon determined to have one of their own and show as they have done, the most complete line of all closed models of all makes sold in Eastern Canada. They were not without experience as their association has held automobile shows every year except one war year since 1913 and under other auspices had held shows for four years previous to that.

They got busy at once. The secretary of the association, Adelstan Levesque, was appointed manager of the show which henceforward was brought prominently before all interested parties through the medium of the association's monthly magazine, *Auto-Meter*, by attractive show cards and newspaper advertising as well as editorial news matter. The Federal Government who were made to realize the importance of such an exhibition in its effect upon the automotive industry readily permitted the use of a commodious drill hall, a method of procedure which obviously is open to the dealers of smaller towns. Influential citizens were approached and interested in the plan and readily consented to lend their name and presence to get the show off to a good start.

The official opening occurred on the night of Sept. 30 when the Hon. George Graham, Minister of Militia, made a spirited address full of encouragement for the future of the industry. The Hon. J. L. Perron, Minister of Roads for the Province of Quebec, followed with an interesting discussion on the relation of

By G. PEARSON

his department to the Automobile Association, pointing out that they were Siamese twins in their dependence upon one another. He stated that since 1912 \$41,000,000 had been spent on roads in the

## The M. A. T. A. Says:

Every once in a while we stop to examine the progress of the automotive field and the rapidity of its movement becomes almost unreal. We are a little afraid that this field must have its limitations and we begin to speculate upon the possible extent of the market.

We forget that no transportation field has ever been limited except by its own capacity to meet the conditions. In fact, it is transportation that has enabled other industries to build themselves up and permitted the social organization to develop.

Some people wonder about the usefulness of the passenger car, but the character of our urban life has been entirely changed by its advent, and some such form of convenient transportation is necessary to the circumstances surrounding us. Similarly, the truck has changed short haul and local delivery, and it is changing the situation even over longer distances.

Here is a thought for every man interested in the industry:

The open car is more of a luxury now than the enclosed one. It is completely satisfactory for only three months of the year.

The enclosed car is a necessity the year 'round.

province to build 4,700 miles of road, that one and a half million had been spent on repairs in 1922 to date, that the work of putting every inch of road in the province in first class shape was now half-way completed and would be completed in three years and that the Montreal to Toronto highway is practically completed as far as Quebec is concerned.

## Exhibits Presented Animated Sight

The show room presented an animated sight with one hundred and ten cars in

long irregular rows, well spaced to get the utmost benefit of light and inspection possibilities, a fact that no doubt prevented a large number of exhibits as no restrictions were placed on the number of models exhibited by any one dealer, and as it was, all of the thirty-three thousand square feet of the drill hall was utilized. Potted palms, ferns and cedars interspersed amongst the cars added the necessary touch of contrasting colour amongst the black checkerboard of the cars, while the band of the Royal Montreal Regiment gave a popular programme every afternoon and evening of the show.

An admission fee of thirty cents was charged to help pay expenses; exhibition space was sold by the foot and all profits return to the association and through it to the individual members, that is, the exhibitors, so that the latter exhibited at cost. Under these circumstances six thousand people went through the gate on the opening night, a larger number on Tuesday and an estimate of ten thousand on Wednesday (society) night and twelve thousand on Thursday. Wednesday was the red letter night from the salesman's standpoint as it was especially designed to attract the wealthier class of people, all first-class prospects for cars now or in the future.

## Many Sales Reported

On all sides dealers report better sales than during the last annual show, held in February of this year and a bigger business the first day than on any previous similar occasion. The Legare Automobile and Supply Co. reported six Hudson, Essex and Chevrolet cars sold within a few hours of the opening, while the Canada Motor Car Co. sold a four cylinder Maxwell sedan within an hour of the opening. "Sunbeam," an English six passenger exhibited by Lymburner Motors Co., registered a sale at once and a Willis Sainte Claire exhibited in Montreal for the first time by Juan Escala gathered in three sales on the first day; and in addition other dealers reported first day sales of three Dodge and Studebaker cars and one seven passenger Marmon, besides others not listed.

Salesmen report a large number of promising enquiries which undoubtedly will blossom out later as the opportunity presented is too good a one for buyers to compare cars for them to be





An interesting view of the Montreal closed car show. Tasteful decorations and bright colors of some of the models gave a pleasing effect.

swept off their feet by silver tongued oratory. On every possible occasion names and addresses are requested by salesmen for later personal follow-ups and everything possible done at the moment to create a good impression on the prospect, each salesman following his own leads as far as possible to preserve the connection and keeping the odd eye open on the vagaries of other dealer's prospects according to the dictates of his own conscience. In the majority of cases of straight enquiries a desire to see the car in operation seemed uppermost. The salesmen have made the most of the sudden spring of the closed car into popularity and have found generally speaking that the points in that history have been well taken, so well in fact that the Montreal dealers, previously awake to this fact as their holding of this show indicates, are now more than ever preparing to meet changed conditions which appear to include an ever increasing demand for this type of car.

#### Rapid Development of Closed Car

The development of the closed car has been so rapid that comparative figures only extend a short time back, but they are illuminating, and also convincing, especially to the buyer who wants to be in the swim. At first manufacturers were too busy improving the car engine to bother much with the body. The last few years have seen the perfection of the engine and a consequent improvement of the body of all classes of cars, particularly open ones. That left the closed car as the most promising field of successful exploitation. In 1919 the closed car production of the United States was only ten per cent. of the

total. In 1920 it rose to seventeen per cent. There was a falling off in the rate of gain during the latter part of 1920 and less activity in 1921 due to the slump; but in spite of that, production for 1921 was 22.1 per cent. of the total. To date the proportion stands at 25 per cent. for 1922 and competent authorities agree that within five years closed car sales will exceed open sales. The rate and extent of the increase in closed car sales will be greatly accelerated by the fact that with increasing production manufacturers are going to be able to bring prices down closer to those of open cars and when that goal is within reasonable distance it is argued that the closed car will win, hands down. In isolated cases the foregoing figures have been surpassed. Thus, the Cadillac Company report that within eight years the proportion of their closed sales to total has risen from 7 per cent. to 54, showing a gain of nearly 8 per cent. a year.

These points have been pounded into the Montreal public the last week and illustrated by the collection of cars most of which gave actual evidence of the improvement in design caused by this growing demand.

#### New Cars Shown

Amongst the striking exhibits noted were those of the Hudson, Essex, Chevrolet, Nash and Oakland, shown by the Legaire Automobile and Supply; the first appearance of the Oldsmobile five-passenger, four-cylinder brougham; the Ames-Ford enclosed bodies shown by the Cliffside Garage for the first time, were a decided novelty, specializing as they did in Ford motors with improved bodies; and the Dodge cars exhibited by the Montreal Motor Sales Co., featuring

an all-steel business sedan so arranged as to allow conversion into one spacious apartment that will hold trunks and other heavy baggage, making it especially suitable for business men and farmers; Carriage Factories showed a special body car which was mounted on a Cadillac chassis and which was accounted one of the most beautiful bodies at the Toronto exhibition when shown there; Wm. Gray-Sons-Campbell Ltd., had an especially fine exhibition of Gray-Dort cars; the Ginsberg Motor Co. showed their Rolls-Royce and Studebakers; McLaughlin Motor Car Co. had a very complete line of McLaughlin-Buicks; the Montreal District Ford dealers Ltd. exhibited Fords and Lincolns, the latter for the first time and consequently attracting much attention; and the Montreal Vehicle Motor Co. showing Lexingtons and Parkers, attracting a good deal of attention, particularly with the latter car as it is manufactured in Montreal.

#### Exhibitors Well Satisfied

Manager Levesque, who has been chiefly responsible for the success of the Closed Car Show, is naturally most enthusiastic about it and says: "The exhibitors are so well satisfied with the interest shown by the public as indicated by enquiries and sales, to say nothing of the crowds, that while nothing definite has been done yet, there seems no reason to doubt that the show will be an annual one in addition to our regular automobile show held in February of each year. In addition to the general public there has been a very good attendance of dealers especially from Eastern Canada and of manufacturers, indicating their opinion of the widespread appeal of the show."



# Start Early for Christmas Business

As Christmas Approaches Everyone is Confronted With the Annual Problem of Securing Gifts for Various Members of the Family and Friends. Automotive Dealers Can Get a Share of This Business. This Story Tells How.

**T**HE CHRISTMAS season offers many opportunities for the automotive dealer to increase his profits. Christmas has always possessed the faculty of appearing to be in the dim and distant future until about December tenth when it suddenly jumps out of obscurity and faces the dealer with the realization that he has perhaps neglected preparing himself to take advantage of the profit making opportunities presented by this season.

As Christmas approaches practically everyone is confronted with the annual problem of securing gifts for the various members of the family and innumerable friends and acquaintances. Long lists are made up and gone over time and time again in an endeavor to secure some suitable gift for Father, Mother, Uncle Henry or some other member of the family. Finally, in despair, the last few days before Christmas thousands of people rush into the department stores and spend thousands of dollars, in many

instances for totally useless and wholly unsuitable gifts which two weeks after New Year's Day will be rapidly acquiring a thick coating of dust in somebody's attic.

## Accessories Make a Strong Christmas Appeal

Many articles of automotive equipment make a strong appeal to the Christmas trade. If Uncle Henry has just purchased a new super-four, what more appropriate gift could be given him than a pair of bumpers, a spotlight, an automatic windshield cleaner, an electric cigar lighter or any one of a hundred articles of automotive equipment which can be purchased at a reasonable price, will be a useful remembrance while he has his car and will add to its value when he wishes to dispose of it.

It is not necessary for the automotive dealer to make a big investment or go to a lot of expense in order to partici-

pate in this Christmas and secure very satisfactory profit as his own Christmas present. It is, however, necessary to prepare as soon as possible to show car owners and their families the many articles of automotive equipment that make very suitable Christmas gifts.

## Appropriate Window Display Important

Well-trimmed windows are a very important factor in creating a Christmas atmosphere and impressing upon the mind of the passer-by the appropriateness of automotive gifts for Christmas.

A Christmas window is very easily set up and need not be at all expensive. A very satisfactory effect can be obtained by setting up a Christmas tree in the centre of the window, covering the floor with white or red paper upon which can be laid those articles which the dealer believes to be most suitable and the whole display can be decorated with tinsel and dusted with imitation snow that can be secured for decoration purposes.

Stop signals, visors, and other highly colored articles lend themselves readily to such displays. A large sign bearing the words "Give Automotive Gifts for Christmas" should be prominently displayed in the windows and throughout the shop.

Small articles that are carried away can be made more attractive and will radiate more of a holiday spirit if wrapped in Christmas paper and tied with red cord. Articles that have to be applied should, whenever possible, be sold at a price which includes their application. When this is done a card can be attached to the package stating: "This article will be attached free of charge."

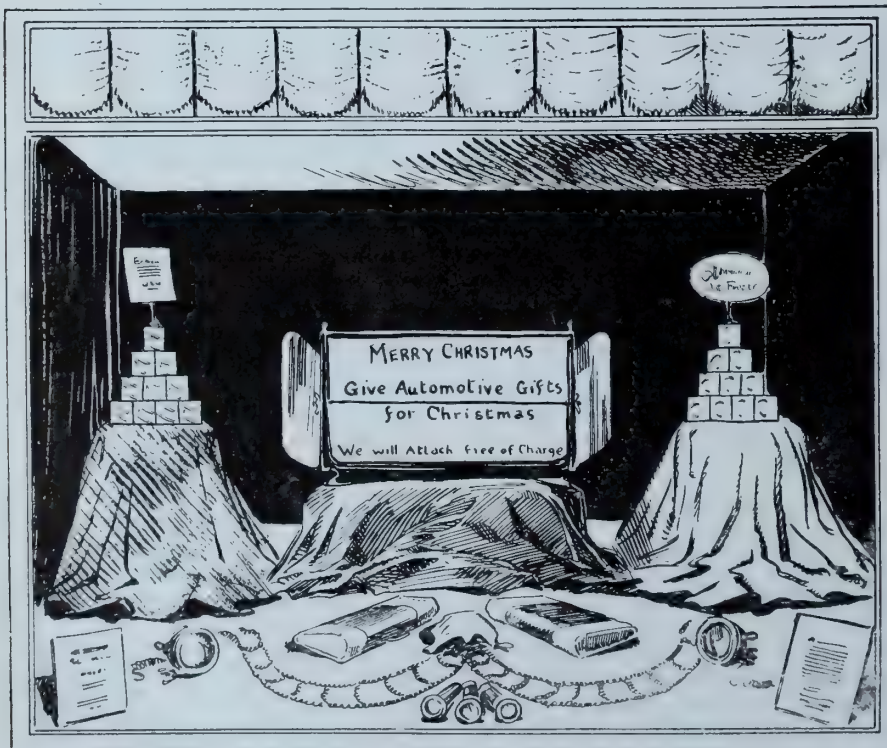
A small sticker bearing the words "Give Automotive Gifts for Christmas" in red letters can be obtained at a small cost and attached to all outgoing correspondence.

## Send Letters to the Wives

Good results have been obtained by sending a form letter to the wives of car owners calling their attention to the many appropriate automotive gifts that will be greatly appreciated by relatives and friends owning cars.

In addition to the application of equipment sold as Christmas gifts, any shop job upon which a flat price can be set makes a very appropriate gift. What

(Continued on page 30)



Here is a suggestion for a Christmas Window. Well-trimmed windows are a very important factor in creating a Christmas atmosphere and impressing upon the mind of the passer-by the appropriateness of automotive gifts for Christmas.



# Fundamentals of Good Advertising

Automotive Advertising to be Effective Should Have a Definite Human Appeal. There Are Some Points in This Story Which Will Help Automobile Dealers to Prepare Advertising Copy That Will Pull

"PICTURES can be sold on sight alone. Shaving soap can be sold on feeling. The Victrola can be sold on an appeal to the sense of hearing. Perfume can be sold on an appeal to the sense of smell. Coca-Cola can be sold on an appeal to the sense of taste.

"But automobiles, and many other commodities, require an appeal to all five senses," said Edward S. Jordan, of the Jordan Motor Co., recently.

"Therefore, we emphasize mental and physical wants and offer comfort by an appeal to all five senses.

"In the application of the appeal to the senses it is necessary to keep in mind that there are five family factors—four individuals, and one other factor which must be taken into consideration.

"Father thinks in terms of economy.

"Mother thinks of the children's opportunity.

"Daughter thinks of a happy marriage.

"Son thinks of travel, speed, pep, get-up-and-go.

"While in every family there is likely to be a pet. It may be a Victrola, a bank account, a new home, a piano, a radio outfit or an automobile.

"Since mother and daughter are the most influential factors in every family, it is well to remember in writing advertising or making a sales appeal to the family, that there are four vital factors in the great human story.

"These factors are love, money, adventure and religion.

"Now that we have the fundamentals of the idea and the fundamentals of the appeal, it is necessary for us to determine how we are going to sell that idea and make the appeal.

"First, we must understand that all human beings are very much alike, and that confidence is the basis of all satisfactory human relations.

"An advertising man is merely a salesman who, instead of calling upon millions of people individually, tries to pay his visit in writing with a correspondence course of salesmanship.

"The first and most necessary thing that a man must possess if he were to make a personal call upon a prospect, is spirit. That spirit must be characterized by sincerity. Secondly, he must possess knowledge of his merchandise, or the facts upon which his appeal must be based.

"These facts about his merchandise should not be presented from his point

of view but from the point of view of the man who is going to be served by it.

"Third, he must have the courage to persist in the presentation of that knowledge in a sincere way, but he must be honest in the presentation or else he will find himself encountering sales resistance due to reaction against statements that the service rendered does not substantiate.

"When we write an advertisement for an automobile we think of all of these

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**In preparing his advertising copy the dealer should bear in mind that he is a salesman, who, instead of calling upon thousands of people individually, tries to pay his visit in writing with a correspondence course of salesmanship. Consequently the advertising should be interesting, should have spirit, sincerity and be presented from the point of view of the prospective purchaser of the goods advertised.**

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facts, and each paragraph is written with the idea of definitely appealing along these lines.

"For instance, when we speak of economy we do not refer to the first cost. We refer to the upkeep cost and the lasting value, or what has come to be known as the second hand value of a motor car.

"That appeals to father.

"When we speak of appealing to mother, who is interested in the children's opportunity, we think of her as planning how the children will look in the eyes of other people, what their educational advantages will be and what accomplishments they may demand.

"When we think of daughter we think of how she would like to appear to her friends, what social contact she would like to enjoy and what entertaining diversions she would like to provide for her friends.

"When we think of the son we think of every healthy boy who has ever lived. He wants to go somewhere. He wants adventure. The rainbow is always enticing him from over the hill, and he

hopes that just around the next corner he will find some wonderful treasure island where money can be dug from under every tree.

"If you want to bring mental comfort to a man, it is only necessary for you to recall to him the most fascinating story he ever read, the most tuneful song he ever heard, or the greatest piece of music by which he was ever thrilled.

"If you want to appeal to his physical sense it is only necessary to call to his mind some very appetizing dish which he has eaten, or possibly remind him of the refreshing quality of spring water as it impressed him after a long hike over the road.

"The first idea, then, is to determine whether your merchandise satisfies a need, fulfills a desire, or gratifies a want.

"Now mental wants are aroused by the desire for relaxation, or relief from worry.

"A bank account relieves worry. A good book relaxes the mind. Pictures excite the imagination, and music soothes the troubled soul.

"Physical wants may be gratified by such a commonplace thing as a safety razor, a cake of soap, or a comfortable pair of shoes.

"Now that we have established the character of the want, we must arouse an appreciation of the merchandise we sell by appealing to the five human senses—sight, feeling, hearing, atmosphere or smell and taste."

## OAKLAND FOR 1923 SHOWS MANY CHANGES

The Oakland models for 1923 show many changes in the bodies and a few minor changes in the chassis and equipment. The bodies are deeper with crowned fenders wider and heavier than before and the runningboards are lowered 1½ in. All models are now fitted with drum type headlamps and the closed models have heaters and rear view mirrors. The sport model is more completely equipped and better upholstered.

The chassis changes are slight. A new type of Marvel carburetor is used and the exhaust heated manifold has a temperature control operated by a throttle. A new Remy distributor with semi-automatic advance is enclosed in the breaker box instead of the moving distributor head.



# Canadian Automotive Trade

MEMBER AUDIT BUREAU OF CIRCULATIONS,

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TORONTO, OCTOBER, 1922

## Christmas Merchandising

**W**HY NOT this year go after Christmas merchandising of automotive equipment?

Perhaps you have never thought of it.

It is as easy for automotive equipment dealers to cash in on the Christmas shopping custom as it is for the jeweler or the large department stores.

All that is required is for the dealer to make a start. It can be done and is going to be done by hundreds of dealers throughout the country.

Although Christmas is still more than two months away the dealer who is determined to avoid the slump in his business usually attendant on the Christmas and New Year seasons should start NOW.

He can get lots of ideas from the jobbers' salesmen, for they too are going after this business and are collecting all the ideas they can to help put it over.

Many common products such as replacement parts can be fitted into Christmas merchandising. If Dad's car needs piston rings, a set makes a fine present. The same with windshield wings for the open car, hand warmers, foot warmers, car heaters, chains, etc., etc.

Shop service can also be sold. A paint job, a carbon cleaning job, or any job for which a price can be scheduled beforehand can be sold as a Christmas gift.

On another page of this issue we publish a story on Christmas merchandising, which should be read by all.

Don't wait until a few days before Christmas before starting in.

Start now!

You will find there is a lot to do before you put the idea across.

## Value of Keeping Contact

**O**NE OF THE best confidence builders we know of is keeping contact with the man who buys an automotive vehicle, labor or equipment from you. In this issue we publish the stories of two dealers, both of London, Ont., and both of whom have a well defined follow-up system which has fostered satisfaction in the breasts of their customers and greatly increased their sales.

One of the dealers sells service only and the next day after a car has been delivered one of his service men calls at the customer's home to see if everything is satisfactory. Both believe that this one point of keeping in touch has contributed more to the success of their business than any other single factor.

They find by maintaining contact that they learn of many prospects for cars and service which ultimately lead to sales and profit.

It is quite certain if a customer is satisfied that he will do all he can to throw business your way. So, if you have not already done so, why not start now on a definite system of keeping in touch? You will find it pays big dividends.

## Things to Avoid in Selling Trucks

**D**O NOT CRITICIZE other makes of trucks.

Do not have too much to say; give the prospect a chance to figure out some of his own problems and then go over them with him for the purpose of showing him where your truck would prove immensely beneficial to him.

Do not impress him with the thought that he is spending money, but rather that he is making an investment essential to his business.

Do not misquote your loading capacity in your anxiety to make a sale, as selling for overload may result in serious consequences.

Do not sell looks or paint, but sell construction, durability and economy of operation.

Do not be too mechanical in your description, but be prepared to answer any mechanical questions that may be put to you.

## When Numbers Are Misleading

**E**ACH YEAR the management of the Canadian Exhibition strives to set up new records for attendance. The impression is given that the number of people who can be jammed through the turnstiles is the measure of the fair's success. Hon. Manning Doherty very effectively told the directors as their luncheon guest that the idea of over-filling the grounds and buildings was a poor one if the effect was to have entertainment seekers crowding out those who would benefit by the exhibits from an educational standpoint.

The mistake of being carried away by mere numbers, of over-looking quality in striving for quantity, is a common one. There are many business men who are otherwise sane and sound in the conduct of their business, who are imposed upon by big circulation statements when buying advertising. The manufacturer or wholesaler with a few thousand customers, makes a great mistake when he pays big prices for advertising space on the basis of a hundred thousand circulation.

## Business Prospects Are Brighter

**W**HILE general trade conditions do not appear to be due for any great spectacular boom in the immediate future, the report of the officials of the Canadian Manufacturers' Association, who are most closely in touch with the situation, is that prospects are considerably brighter than they were a year ago, and that they are far ahead of the conditions of two years ago. So far as they can judge, there does not appear to be any reason why any persons should go hungry during the coming winter, severe though it may be, for there is the fact that a remarkably fine crop is being harvested in the West, while the reports coming from both Ontario and Quebec are that the crop is above the average. In addition, the Maritimes are able to announce favorable crops. As has been the case in the past, trade conditions throughout Canada are dependent largely upon the crop situation, and that is a decidedly cheerful one. On the whole, a general survey of Canada indicates that while trade is not going to leap ahead, it is due for a general revival, and that is what those in charge of industry are asking. They do not want bursts of speed; but they ask for a gradual growth.



# Value of Specialized Trade Papers

Address Delivered at Directors' Luncheon of Canadian National Exhibition on Press Day, by Horace T. Hunter, Vice-President, Canadian National Newspapers and Periodicals Association

**M**R. PRESIDENT, directors and fellow publishers: You have heard from the Daily Newspaper Association, from the Weekly Newspaper Association, and I have been asked to speak for the Canadian National Newspapers and Periodicals Association, which might be termed the residuary legatee of the newspaper publishing business. It is not, however, an uncommon thing for the residuary legatee to get a very large part of an estate.

## Over Three Million Subscribers

The extent and influence of publications represented by our Association are indicated by the following approximate statement of circulation:

Farm Papers .. . . .	1,030,897
Magazines .. . . .	1,065,307
Religious and Educational Papers .. . . .	725,000
Business and Technical Newspapers .. . . .	399,099
<b>Total .. . . .</b>	<b>3,220,303</b>

On behalf of the Canadian National Newspapers and Periodicals Association, representing over three million subscribers, I wish to congratulate you on the success of this year's Exhibition. We know that it is not like Topsy, "just grewed." It has been brought to the high state of perfection it occupies to-day by the shrewd and far-seeing policies of the directors and executive officers, and by their untiring energy in carrying out these policies.

You referred, Mr. President, to the old custom of subscribers to weekly newspapers sending in cord-wood to pay for subscriptions and suggested that some of this wood be sent to relieve fuel shortage in Toronto. Might I suggest that if there is still a shortage some of the "hot air" in the daily newspapers could be used to advantage. (Loud laughter).

It is easy to be optimistic about the Fair to-day; but there are many of us here to-day who can remember the difficulties that had to be overcome and the optimists of twenty-five years ago would probably be looked upon as the pessimists to-day. This situation reminds me of an old settler who was told that they were going to build a railroad right through the village in which he had lived for seventy years. He shook his head, however, and stated: "They'll never run it." The right of way was secured, the tracks were laid and finally a party came to him and told him to come down to the station, that the new train was there and was going to start off in an hour's time. The old settler went down, looked over the equipment and finally, as the train glided gracefully away, remarked: "They'll never stop it." This, Mr. President, must be the feeling of everyone to-day. Nothing will stop your progress.

## Similar Aims and Interests

There are many points of similarity between the work of our Association and the Canadian National Exhibition. These form a strong bond of interest and sympathy between us.

Both are *national*. Our subscribers in the various provinces of the Dominion are the men and women you are most anxious to bring to the Exhibition. The fact that they are readers and subscribers of our papers is the proof that they are people of intelligence, students of business, interested in new meth-

ods and in learning of new goods. They are the people who will travel a hundred or a thousand miles when the opportunity offers to see an exhibition such as you have developed, and I congratulate you that these people are coming in increasing numbers each year.

The international aspect is also a common bond. You have an increasing number of visitors from foreign countries, thus creating a feeling of good-will with these countries, and helping our manufacturers to establish connections abroad. The same reason that brings business men from United States, Great Britain, West Indies, etc., also causes them to subscribe for our publications. These foreign subscriptions have become such a big factor with some of our publications that they are now issuing Export editions.

## Educational Aspect Most Important

Then we are on common ground in educational work. I believe this Exhibition was started primarily for educational purposes and its great success is due to the fact that you have never allowed the amusement side to dominate. I believe the educational features should be given wider publicity. The individual exhibitors do a good deal in this connection but there is much to be done collectively. A few people would come to see a few exhibits of motor cars, but thousands will come when they know there will be seventy exhibitors representing probably seventy per cent. of the manufacturers who are seeking Canadian business. In our Association there is a publication for practically every line of business. These publications have told, year by year, the outstanding events of the Exhibition that would be of interest to their readers, and I think we can claim that this has been a factor in increasing interest and attendance of a very desirable class of people.

## Influence of Business Press

I would like to quote briefly from an address delivered within the past year by His Honor, the Lieutenant-Governor of Ontario, who officially opened the Exhibition this year. Addressing the Canadian National Newspapers and Periodicals Association, His Honor said:

"I believe that the influence of the business press will be one of the most important factors in re-establishing business conditions in Canada on a safe and sane basis. I make a distinction between the business newspapers and the daily press because I believe that your papers—the business newspapers of Canada—exert a greater influence than the daily press because of the greater confidence your readers have in them. People read the daily newspapers to keep abreast of the general news of the day. They are interested in what is happening around them and they read to satisfy their desire for excitement or interest or entertainment. What they read in the daily newspapers to-day is forgotten to-morrow.

"But this is not the case with the business newspaper. Business men need the service of these papers in the conduct of their every-day business life. I have noted that they usually have a business paper or two in their pocket when they go home Saturday night. I do not say that they read them on Sunday, that I do not know, but I do know that they study them carefully and a great number of your readers will come

(Continued on page 36)





J. W. McLaughlin's new showroom. Potted plants are used to decorate the interior and exterior with good effect.

# Makes Salesmen Responsible for Cars Taken In On Trade

This Dealer Has Stopped His Used Car Losses by Engaging Salesmen Who Have a Little Capital, and Making Them Cover All "Trade Ins" With Their Own Money. Ideas You Can Use

**T**HE STORY we are about to tell is of a dealer who has put a stop to his used car losses. For him the "trade in" has lost all of its terrors, and in spite of the fact that nearly seventy-five per cent. of his new car sales are to prospects who have an old car to tender as part payment, he does not lose a dollar on this end of his business. How does he do it? By engaging salesmen who are reliable, and who have a little capital, and then making them responsible for every car they take in on a trade. . . Not only are the salesmen made responsible for the used car, they are also asked to cover the price they allow for it with their own money.

This would seem at first sight to put undue responsibility on the salesman's shoulders, but in reality it is, practically speaking, putting him in business for himself.

## Keeps Used Cars Moving

He invests his money in something which is reasonably certain to produce a small profit. But if it does not produce a profit, that is to say, if he can sell the car only at the price he paid for it, he

loses little, for he has already drawn his commission on the full price of the new car, and is in exactly the same position, so far as money is concerned, as if the deal had been a clean sale. Of course if the salesman allows his used car to remain in his hands without making an effort to sell it, he is investing his money in something which pays no interest.

And right here is seen one of the strong arguments in favor of this scheme—it tends to keep used cars moving:

First, by offering the salesman an opportunity to make a profit on his investment.

Second, by urging him to adopt aggressive selling methods.

J. W. McLaughlin, Overland dealer of London, Ont., is the man who has adopted this system, and he is thoroughly convinced it has put his used cars on a safe basis. His salesmen like it too, and so far have found it satisfactory from every standpoint.

## Used Cars Are Bought

"We have found," said Mr. McLaughlin, "that our salesmen buy the

used cars and are not sold by the prospects. They buy them low enough so that the cars can be turned over quickly and at a profit. Of course all the profits from the sale of a used car go to the salesman concerned in the deal. So if he sells a car for fifty dollars more than he paid for it, he is in fifty dollars, and on top of that has his commission on the regular selling price of new car."

The salesman keeps an active list of prospects for used cars and just as soon as a car is traded in, this list is canvassed. The house advertises the salesmen's cars and displays them. After going over them to see that they are clean and in good running shape, they are put out in front of the salesroom at the gas pumps where everybody can see them.

"The House does not have to worry about used cars," said Mr. McLaughlin, "all its interests are centred on selling new cars, and so far as the House is concerned every sale is a clean sale."

## New Showroom

McLaughlin does no repairing; he is conducting an out-and-out car sales business. His service requirements are



handled by another garage. Recently he built a new showroom which is modern in every way. The building is of red tapestry brick, one storey, with showroom space of 57 feet wide by 30 feet deep. At the rear of the building there is a small room where a car can be taken in for minor adjustments. The floors are made of hardwood and good lighting has been obtained.

#### Aggressive Selling Methods

McLaughlin's methods of getting business are aggressive. He is full of ideas which are put into practice. One of the outstanding features of his publicity policy is a slogan, "Ask the man with the White Hat." Every advertisement and every letter or piece of literature carries this slogan. It is known all over the city and when a person reads it, hears it, or thinks of it, he immediately associates it with McLaughlin's name and Overland and Willys-Knight cars.

Each salesman on duty in the showroom wears a white felt hat which is provided by the house. The firm buys a number of these hats at a time and the salesmen are responsible for keeping them clean and in good shape. At all shows and fairs where they are exhibiting cars, McLaughlin's salesmen wear these hats. They are not worn on the street nor when canvassing prospects.

Another good means of publicity and one in which the "man with the white hat" plays a part is found in a moving picture projecting machine.

A large selection of educational, scenic and comic films are provided.

Schools, clubs, churches and people giving house parties, are invited to take advantage of this entertainment, and during the winter months, as this is given free of charge, the machine is out practically every night. The machine

#### "ASK THE MAN IN THE WHITE HAT"

Is a slogan which has had a large share in building up J. W. McLaughlin's business. Every advertisement, and every letter or piece of literature sent out from his place carries this phrase. It is known all over his district and when a person reads it, hears it, or thinks of it he immediately associates it with McLaughlin's name and Overland and Willys-Knight cars.

on each occasion is operated by one of the salesmen who wears his white hat.

McLaughlin says a lot of business has come to his place through these entertainments.

#### Novel Publicity Schemes

Next to his regular newspaper advertising, McLaughlin places great stress on letter and card advertising. Letters are sent to live prospects at regular intervals and cards are sent to special lists. These are not ordinary postal

cards but specialized messages. A list of seven classes of prospects to whom these cards have to be sent is arranged.

Those prospects are considered as "unusual" requiring a special approach, the cards are classed as follows:

1. Those who cannot immediately be interviewed owing to illness.
2. Those who offer a "hard luck story," yet are interested in purchasing a car.
3. Those who have had a birth in the family.
4. Those anticipating a vacation or business trip.

The remaining three cards in the list are not exactly to prospects, but are intended to produce interest and good will.

They are: Those who have been instrumental in procuring business; those who have a birthday coming due; and those who have had a bereavement in the family.

The last card is sent out after considerable discretion has been exercised and carries only a message of condolence. While business is not anticipated in these cases, a sympathetic interest has been aroused which helps to create and foster good will. No advertising whatever is on this card, it is merely a personal message of sympathy, to a customer or prospect who has been interviewed at some time.

The cards in this list are printed and are on the general style of a Christmas or birthday greetings.

#### How Prospects are Secured

Prospects are secured from lists of registrations, the telephone directory,

EST. TOTAL TOTAL AUG. AUG. AUG. SHORTS TO THE YEAR UNDS. DEL. BEST ORDER. DEL. AUG. SHORTS									AUG. 31, 1921.		SPEED BOARD	
									AUGUST WEEKLY RECORD			
									SALES DELIVERIES			
1 BROWN	25	25	15	5	4	4	1	0	1ST-7TH	5	4	
2 COATES	38	20	15	5	2	1	3	7	7TH-13TH	4	4	
3 POLLARD	35	15	15	5	3	1	3	7	14TH-20TH	10	6	
4 WILLIAMS	32	34	33	5	3	4	0	4	21ST-27TH	2	6	
5 TAYLOR	32	12	12	5	1	1	4	3	28TH-31ST	3	0	
6 HANKSHAW	44	31	21	5	0	0	5	13				
7 HOUSE	43	33	31	5	3	3	0	28				
TOTAL	255	251	242	35	24	20	11	208				

YOUR 5 TOUR BOYS													
RENTAL CHASSIS CHASSIS TRUCKS TRACTORS TOTAL													
CARS TAKEN AUG	15	0	0	0	2	4	0	0	0	3	0	0	24
IN STOCK DEC 31-20	3	0	0	0	3	2	1	0	0	1	1	0	10
CARS TAKEN YEAR	114	3	15	15	50	11	2	7	5	5	0	0	242
" DELD. "	110	3	15	15	50	13	2	7	5	7	0	0	242
CARS IN STOCK	7	0	0	1	4	0	0	0	0	1	0	0	13
UNFILLED ORDERS	4	0	0	1	2	0	0	0	0	2	0	0	9
OVER & SHORT	38	0	0	0	0	28	0	0	0	15	0	0	153
CANCELLATIONS						1	2						3

This shows McLaughlin's method of charting sales. With this chart a complete record is obtained of all sales made in relation to quota, and the number and kind of sales made by each salesman during a certain period. The total of a year's business is shown in the table at the bottom.



daily papers, and by personal contact. The stenographer each morning goes over the newspapers and makes a note of the following: New firms starting up; people who have been left property; business men who have built a house in the outskirts; professional men, such as doctors, dentists, etc., who have opened offices, etc. In this manner a large list is obtained and cards made out containing all the known particulars. The cards are then handed to the salesmen.

After the prospects have been interviewed the cards are filled out giving all particulars of the calls.

Each week the salesmen meet to confer with Mr. McLaughlin. The prospect cards are gone over carefully and ways and means are discussed for overcoming obstacles in the way as revealed by the different cards.

#### Handling Prospects

McLaughlin's method of handling prospects is worth noting. After a salesman makes a first call—at which no literature is left—a letter is sent to the prospect thanking him for the interview and enclosing literature about the particular car he is interested in. The prospect is then left to study the literature at his leisure and when the next call is made the salesman is able to talk business to better purpose, for the prospect has had time to familiarize himself with the car's features. This system has been found to work well for it relieves the salesman to a large extent from going into mechanical details—which often confuse the prospect—and leaves him free to discuss the advantages of a car from the standpoint of transportation, convenience and comfort, when he makes his second call.

If a sale is not made after the third

call the prospect is considered as not in the market for a car and his name is taken off the list. In this way, McLaughlin figures he saves a great deal of his salesmen's time and keeps his prospect list active. The lists are checked up from time to time and the "dead" names taken off.

Letters are sent out once a month to commercial prospects for light trucks.

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McLaughlin's prospect file is the most important item in his selling equipment. It is kept "up to the minute" and is a comprehensive survey of the business prospects of his territory. If a sale is not made after the third call the prospect is considered as not in the market for a car and his name is taken off the list. Conferences are held once a week to discuss obstacles to sales as revealed by the prospect cards.

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These are also followed up by letters to travellers of the various commercial firms. The travellers' letters are for propaganda purposes. The accumulative effect of such propaganda on sales in McLaughlin's opinion is very great.

#### Fostering Selling Enthusiasm

McLaughlin has many ideas for keeping up the enthusiasm of his selling force. Contests are staged in which prizes are given. These sometimes take the form of team and sometimes individual contests. Another idea which

has worked well is to chart all sales. Each salesman's name is on this chart, his quota of cars for a certain period, number of sales made, number of clean sales and number of sales with a trade, etc. At the end of the period for which the chart is made it is photographed and filed away. Thus a complete record is obtained of all sales made in relation to quota, and the number and kind of sales made by each salesman during a certain period. And as this is a perpetual system, it forms a history of the organization's transactions which is invaluable for reference purposes. It also visualizes the results of the efforts of the salesmen and acts as a spur to them.

McLaughlin believes in doing everything in his power to make his customers satisfied. Every man who buys a car from him gets a book of tickets worth ten dollars which he can take to the garage man who does McLaughlin's service work and get labor or equipment to that amount. The customer is also entitled at all times to fifteen minutes free service.

As one would imagine, McLaughlin sells a great many cars. Previous to taking over the Overland agency early this year he had handled Ford cars in London for ten years selling about three hundred cars yearly. His staff at present consists of four salesmen, one accountant and a stenographer.

#### Attention to Appearances

McLaughlin puts marked emphasis on the appearance of his place and the neatness of himself and salesmen. His men are shaven every morning and neatly dressed with well pressed clothes and clean linen. Customers when they come into the salesroom are promptly taken in hand and treated with the greatest courtesy, whether they have come to buy or just look around.

#### OTTAWA MOTOR SHOW BIG SUCCESS

THE MOTOR show at the Central Canada exhibition, held in Ottawa recently, was a big success in every way. The show was staged in Howick Hall. There were more exhibits than there was accommodation for, and cars that could not find room in the big hall were housed in the annex where the motor trucks were displayed last year. Accommodation for the trucks was provided by a large tent.

The committee in charge of the show, under the leadership of G. J. Pink as chairman and Stewart H. McKay as sub-chairman, consisted of C. M. Woodburn, W. M. Deisher, Lorne M. McCoy, W. MacDonald and O. Beach. The show was made very attractive by decorations of evergreen trees of uniform size.

Practically every make of car sold in Canada was on display. According to reports from the various dealers, interest was very great and many sales were made.

The automotive equipment was displayed in Howick Hall and made a brave showing.



S. J. Collacutt, Ford dealer, of Pickering, Ontario, has just built this fireproof garage. It stands on a corner lot and is constructed of cement blocks. It is equipped to handle all kinds of repairs. The showroom and the automotive equipment department occupy the entire front except for the large door at the left leading into the repair room, which occupies the rear of the building. An interesting feature of the building is that it is lighted by an individual lighting plant which is proving both satisfactory and economical.



# Sell Tractors Now for Belt Work

From Now on the Farmer Has a Great Deal of Belt Work Which Can be Done Economically With a Tractor. Big Opportunity for Dealer. Need for Educational Work and Intelligent Selling.

**T**HE AMOUNT of belt work done on farms has increased tremendously the past few years, because with the increasing use of tractors and stationary engines a satisfactory form of power for belt work was readily available. Furthermore, work of this kind will continue to increase as time goes on, and the tractor dealer should be thoroughly posted on the possibilities of the tractor for such belt work and be prepared to help his customers solve the many problems which arise in connection therewith. By giving attention to this, dealers have a means of increasing sales.

Nearly every farmer who buys a tractor eventually uses it for belt work of some kind even though he did not have this in mind at the time he purchased the outfit, and in most cases the work is new to him and he encounters difficulties.

Modern machinery has made the farm of to-day much different from that of only a few years ago. In the days of steam power, the average farmer could not afford his own power plant and therefore had to depend on the custom rig to do such belt work as he had to do. The advent of the internal combustion engine, which made small and econom-

By ARNOLD P. YERKES

ical power plants available to the farmer, resulted in the development of numerous belt-driven machines to meet many needs which had theretofore gone unfilled on most farms. And to-day we have the individual threshing outfit, the power hay press, corn shellers, feed grinders, buzz saws, huskers and shredders, ensilage cutters, irrigation pumps, etc., all of which can be operated by the farm tractor, if properly managed. It is rightly a part of the dealer's service therefore and a most profitable one, to assist owners in using their tractors for these various jobs and see that they get the utmost satisfaction in all cases.

## Figuring Belt Speed

There are no serious difficulties in the way of obtaining such satisfaction but there are numerous slight details which must be attended to or unsatisfactory results are sure to follow. It would be wise to review these here very briefly, for the dealer's success in selling tractors for belt work will depend on his ability to instruct his prospects.

Probably the most important point is

the matter of belt speed. In most belt operations on the farm, it is highly important that the driven machine be operated at the correct speed and in most of them a speed either too high or too low will mean unsatisfactory work and not infrequently incur danger to those engaged in the work.

It is really a simple matter to obtain the proper speed on such machines. In practically every case, the speed at which the machine should be run is stamped on it or at least the information is contained in the manufacturer's literature. Practically all makes of tractors are equipped with governors which maintain uniform engine speed. This speed is also generally known but there will, of course, be slight variations from time to time due to difference in lubrication, sticking of the governor parts, or getting out of adjustment in other ways, and there have been many cases where unsatisfactory operation of some belt machines has been traced to a too high or too low speed of the tractor engine even though the proper sizes of belt pulleys were used to give the correct working speed when the tractor engine was running at its rated number of revolutions per minute.

It is important, therefore, that a



It is extremely important when a tractor is used for belt work that the belt pulleys be in proper alignment, especially in cases where a crossed belt is used.



check be made first on the speed of the tractor engine, or, more specifically, on the belt pulley of the engine, for in some cases, where the latter is driven by gears, it will run at a different number of revolutions per minute than the motor itself.

A tractor dealer will find it worth while owning a revolution counter for the purpose of quickly and easily ascertaining the number of revolutions per minute of belt pulleys and shafts. In the absence of such a device, however, it is an easy matter to ascertain the speed of pulleys or shafts, in several different ways. One way is to measure the total length of the belt and the circumference of the pulley, the speed of which it is desired to know. Then, by placing some kind of mark at one spot on the belt and counting the number of turns the belt makes per minute while the outfit is in operation, multiplying this by the length of the belt in feet and dividing by the circumference of the pulley, also in feet, the number of turns of the pulley per minute will be approximately determined.

For example, take a belt 50 feet long, double, or 100 feet in total length, and it is found that the lacing or some other mark on it passes a certain point 25 times every minute. This means that the belt speed is 2,500 feet per minute, and if it is driving a pulley 9 inches in diameter the speed of the latter, ignoring slippage, can easily be found by multiplying 9 by 3.14, which will give the circumference of the pulley in inches, or 28.26 inches, which is equal to 2.35 feet. If the circumference of a 9-inch pulley is measured with an ordinary rule, it will be found to be approximately 2 feet 4 inches, or about 2-1/3 feet. Dividing 2,500 by 2-1/3 will show that the driven pulley is running at approximately 1,070 revolutions per minute, unless there is considerable slippage.

On both tractor and driven machine, there will usually be some part which moves at a speed slow enough to count, and by running the machine slowly by hand and ascertaining how many turns of the belt pulley it takes to make such a part revolve once, it is an easy matter to ascertain the speed of the pulley itself when the machine is in operation.

One not uncommon cause of complaint is belt slippage. It may be that the tractor motor is running at the correct speed and the pulleys are of the right diameters to give the driven machine the correct working speed and yet have the latter run too slow due to excessive slippage of the belt. There will always be slight belt slippage but with the right kind of a belt and with the machines properly placed, this slippage should not be sufficient to cause any difficulty.

As already pointed out, it is always advisable to check the speed of the tractor motor first. If it is running below its rated speed it will not develop full power, and there have been a great many cases where complaints have been

made that a tractor would not operate a certain size of machine and where investigation disclosed the fact that although the driven machine was running at its proper speed, the tractor motor was being run too slow, due to having too large a belt pulley on the driven machine, hence the tractor engine was developing considerably less than its rated power.

There are often cases where the power is ample for the work and where the governor may be adjusted so as to reduce the speed of the tractor engine below normal in order to obtain the proper speed of the driven machine without getting a new pulley, but this expedient cannot be made use of where the tractor will require its full power for the work.

Too slow a speed will cause several kinds of trouble. In the case of a thresher it is sure to result in poor work because if the machine is not operated at its proper speed, the grain will not all be knocked from the heads, it will not be shaken from the straw, and the threshed grain will not be properly cleaned. In the case of an ensilage

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**It goes without saying that the dealer should be thoroughly informed regarding the advantages of farmers doing their own belt work and be able to suggest to tractor owners the belt machines which they could use profitably.**

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cutter, too low a speed will mean a reduced capacity and frequent clogging of the pipe, especially in cases where the silo being filled is a tall one and requires high speed of the air blast to deliver the cut material. Too low a speed is a very frequent cause for complaint regarding the capacity of the machine which the tractor is operating and frequently causes the farmer to believe that he has bought an outfit which is too large for his tractor.

#### **Knowing Capacity of Machines For Different Tractors Important**

Speed too high is perhaps better than one too low, except that it will frequently create a danger because of the high speed of some revolving parts, such as ensilage cutter flywheels, threshing cylinders, buzz saws, etc. Accidents of this kind are by no means uncommon in spite of the fact that practically all such parts are built with a large margin of safety, but although such parts may be strong enough to withstand a speed several times as high as that at which they are intended to run, after they have been in use for some time they are likely to become more or less weakened through accident, serious rusting, or some other cause, and thus become extremely dangerous when operated too fast. In the case of a threshing machine, too high a speed

will also cause cracking of the grain and a waste by blowing the grain over the tailboard.

It is highly important that a dealer should know the proper capacity of different machines to be sold for use with different tractors. If he does not have this information, he should obtain it from the manufacturer or some other reliable source before making the sale, otherwise misfits are almost sure to occur, and by obtaining the necessary information first, the dealer is taking a long step toward preventing complaints from his customers, both about the tractor and machines for use with it.

Unless the dealer does possess information on this point and knows that a certain tractor is capable of operating a given size of machine and is actually doing it in other places or in his own neighborhood, he will not be in a position to tell whether the machine is really too large for the tractor or whether there is some other cause for the trouble. With this fact known, however, the dealer is in position to look for the real seat of trouble and find out whether the machine is being operated at too low a speed, whether the engine lacks power, whether the work is particularly difficult, or whatever the reason may be.

There are a number of different causes for various machines requiring excessive power to operate them. In the case of an ensilage cutter, for example, running with dull knives will add greatly to the power required. The same will hold true when the revolving knives are not properly adjusted with relation to the fixed knife. With a threshing cylinder, badly worn teeth frequently require more power and do poorer work. It is obviously important that the dealer or someone in his employ be thoroughly familiar with the various machines which are used with the tractor on the belt in order to quickly locate the cause of trouble when it is reported, and remedy it.

#### **Arranging the Tractor for Belt Work**

It is a very common error among farmers and others who use tractors to believe that so long as the belt runs in the center of both pulleys and shows no tendency to come off, the pulleys are in proper alignment.

This is by no means true. It is possible to have the tractor pulley a foot or more to the right or left of its proper position and yet have the belt run in the center of both pulleys. In fact it is very common to find the tractor pulley several inches to one side of its proper position and yet have the belt running in the center of the pulley, or even toward the side of the pulley farthest from the driven machine. The reason for this is that the tractor is sitting at a slight angle and this angle offsets the tendency of the belt to run off the pulley. It is extremely important that the belt pulleys be in proper alignment, for under the conditions



just mentioned, one side of the belt is sure to become badly stretched, especially in cases where a crossed belt is used, for the distance between the two opposite edges of the two pulleys may vary an inch or more in such cases and this will mean stretching one edge of the belt 2 inches, and poor contact at the same time.

Having the tractor set at a slight angle may cause the belt to run to one side or the other, even though the centers of the two pulleys are in alignment, hence the common method of moving the tractor to the right in case the belt has a tendency to run off the pulley to the right, or vice versa, may, and frequently does, result in getting the belt pulleys out of alignment and in stretching the belt. If the pulleys seem to be in line and the belt continues to run toward one side, it is quite likely that the trouble really lies in the tractor not sitting perfectly square, and changing its angle slightly will remedy the trouble and at the same time save the belt.

It may happen that a dealer sold a farmer a belt which has been used under such conditions, and if so it is quite likely that he will receive a complaint that the belt was not of first-class quality because it stretched badly on one edge. Unless the dealer is posted on this point, he may not know just

what the real cause of the trouble was. Such cases are not due to any fault of the belt, but to faulty lining up of the pulleys on the tractor and driven machine.

### Tractor is Economical on the Belt

The dealer is quite likely to have some farmers raise a question concerning the economy of using a tractor engine of perhaps 20 h. p. or more for jobs requiring only four or five horse power. Many men are of the opinion that it is expensive to use large engines on light jobs of this kind and that it would be more economical to obtain a smaller engine for such work. As a matter of fact, however, the difference in the amount of fuel and oil required by a large engine and a small engine in cases such as above mentioned is practically negligible, and it is not at all uncommon to have the larger engine prove more economical than the smaller one on light loads.

The dealer is quite safe, therefore, in advising his customers that the tractor will handle such light jobs almost if not quite as economically as the smaller engine, for the fuel and oil consumed are usually in very direct ratio to the amount of work actually done, and there is very little more friction in the larger

engine on a light load than in a smaller engine, and quite often the larger engine is considerably more efficient than the smaller one because of better carburetion, ignition, or some other feature.

It goes without saying that the dealer should be thoroughly informed regarding the advantages of farmers doing their own belt work and be able to suggest to tractor owners the belt machines which they could use profitably.

The advantage of the individual threshing outfit have been so frequently pointed out and are so well known that they need not be repeated. On practically every farm where considerable live stock is kept, a feed grinder will pay good dividends. This is especially true in the case of dairy farms or where stock is to be fattened for market. It has been demonstrated in many tests that the returns from ground feed are more than sufficient to pay the cost of grinding.

The sale of a tractor opens up a field for the sale of a great many belt-driven machines which dealers should not neglect, for not only will their own interests be served by bringing these to the attention of their customers but, through their use, the tractor will become more profitable and more satisfactory to its owner.

# You Can Sell Radio Sets This Winter

Dealers Have Been Looking for a Line for Which There is a  
Constant Winter Demand. Radio is a Winter Business Which  
Fits in at a Dull Time, and is Very Readily Demonstrated

**N**O ONE could say that nature sets herself out to help the garage business in Canada. With the exception of the larger towns, when the snow comes the garage man shuts up shop and settles down to wait with as much patience as possible for the melting of the snow next spring.

During my connection with the wholesale automobile supply business over the last ten years this problem of crowding twelve months' business into the summer season has been a stumbling-block, a problem which has received the most intense study from wholesalers and jobbing houses.

### Fits In At a Dull Time

The coalman can sell ice in the summer time, but for the garage man in the country, beyond an occasional overhaul, he has little custom to keep his shop busy or help pay the rent. Dealers for years have been looking for a balancing line for which there is a constant winter market. This balancing line has been found in radio receiving sets.

Radio is essentially a winter business.

By H. F. MILLAR  
John Millen & Son

The wonderful music comes in clearly in the winter time and with a good receiving set the finest concerts of the continent are available in small towns and villages as in the large cities.

The garage man is familiar with the electric wiring of an automobile—the electric wiring of a radio set is very similar. It is a fact that the training of a good car mechanic places him on familiar ground in wiring a radio set and testing the accuracy of the electrical connections, or the condition of the storage battery.

To show that radio has already been recognized as a strong winter line for the garage man one may point out that many houses wholesaling automobile supplies have put in a full line of radio supplies and complete sets. In addition to this it is found that many manufacturers of automobile ignition have added radio equipment and need less to say from their years of exper-

ience with the accuracy necessary with this class of goods, the radio sets turned out by such concerns are thoroughly reliable.

### Do It Now

If you can wire a car you can wire a radio set. If you can make a profit on the sale of an automobile accessory you can make a profit on the sale of radio supplies. And they can both be purchased from the same house you are dealing with from day to day.

The garage man who has not yet looked into the matter should do so as soon as possible. He should make a list of his car owner customers and just figure what proportion of the thirty million dollars that will be spent this winter in radio is going to be spent by his customers—and then see whether it will be worth while for him to collect on this.

Radio will do for the garage man in winter what ice does for the coalman in summer, it will make an all-year-round business.



# Accounting Plan for the Garageman

This Article is the Second in a Series of Three. The First Described the Ledgers, Accounts Receivable and Payable, the Present Deals With the Distribution Sheet and Stores Ledger

**B**OOKKEEPING, after all, is designed for only two purposes—to insure accuracy and to provide information. The simpler a system is, the better it is, so long as it accomplishes those two purposes.

That such a system be simple is particularly important in the retail automotive field, where a relatively small amount of time and money can be devoted to keeping books.

The accounting plan described in this series makes bookkeeping an A, B, C, proposition for the dealer or garage man, calling as it does for the use of

By S. P. COOK  
Burroughs Adding Machine Company

only four ledgers and a distribution sheet in the average business. In the previous article we have described two of the ledgers, accounts receivable and accounts payable, and show just why it pays the merchant to get a daily balance on all accounts.

## The Distribution Sheet

In this chapter we come to the most important single unit in the plan—the distribution sheet.

The distribution sheet is a daily record, just as the posting of the accounts receivable, accounts payable, stock ledger and general ledgers, is a daily job. It serves as a recapitulation of the day's transactions, and a final proof of the day's bookkeeping work.

It is not necessary here to describe in detail the method of handling this work. The form reproduced herewith illustrates the idea.

The face of the daily distribution sheet carries the following headings: Invoices received, cash received, sales, cost of sales, discounts, checks issued, discounts on purchases, notes received and gratis service to customers. In other words, it includes a column for practically every routine transaction in a garage, accessory store or car dealer's establishment.

The sub-headings as printed on the distribution sheet explain exactly what each column is for, and make it simple for anyone to handle the work correctly.

## Making Up The Distribution Sheet

When the bookkeeper is ready to start his work, the first job is to sort the various slips, invoices, memos, etc., into the divisions shown on the distribution sheet. These items he then lists in the proper columns, taking a total of each column. These totals are later used as proof of the rest of the day's work, such as postings to the accounts receivable and creditor's ledgers.

When the daily distribution sheet has been made up, the accounts receivable and accounts payable ledgers are posted (from the original sales slips, invoices and checks) and are proved. Then the general ledger is posted from the distribution sheet.

The distribution sheet has given a logical, accurate distribution of the day's transactions, has supplied a proof of all postings, and has indicated the correct application of debits and credits.

From this description one can easily see how important the distribution sheet is as a bookkeeping unit. It is the assembling point for all sales and purchase figures; it is the distributing point of all figures for the general ledger. It is the final proof of the day's figure work. It is, finally, the merchant's barometer for the operation of his business from day to day.

Have you ever been embarrassed by finding suddenly that your stock of some part of merchandise is exhausted?

STORES LEDGER				Date	Ordered	Average Price	Max.	Location	Card No.
Article 6541				Jan 10	2.00	52¢	500	B 16	9
FX Piston Rings				Dec 16	2.00	52¢	200	3 1/2	1

PROOF	DATE	MEMO	CHARGES	DATE	MEMO	CREDITS	BALANCE
	1922			1922			
4.57	JAN 10 8%		4.57	JAN 10		34-	4.57*
4.23				JAN 20		2.56-	4.23*
3.67				JAN 21		2.66-	3.67*
3.41				JAN 23		.68-	3.41*
2.73				JAN 24		.75-	2.73*
1.98				JAN 25		.85-	1.98*
1.13				JAN 26		.56-	1.13*
.57	JAN 26		2.00				.57*
2.57				JAN 27		2.8-	2.57*
2.29				JAN 28		1.2-	2.29*
2.17				JAN 30		2.1-	2.17*
1.96	JAN 30		2.00				1.96*
3.96				JAN 31		4.2-	3.96*
							3.54*

PARTS ORDER			
Job No. 1728	Date 1-27-22		
Quantity	Item	Price	Amount
12	FX Piston Rings-6541		

BIN CARD			
Article 6541 - FX Piston Rings			
Max 500	Cost 52¢		
Min 200	Price		
Size 3 1/2			
DATE	QTY	BAL	DATE
1/19	34	423	
1/20	56	367	
1/21	26	341	
1/23	68	273	
1/24	75	198	
1/26	56	142	
1/26	85	57	
1/26	200	257	
1/27	28	229	
1/28	12	217	
1/29	21	196	
1/30	200	396	
1/31	42	354	

STORES RECEIVING SLIP			
Date 1-30-22	191		
Article FX Piston Rings			
No. 6541	Manufacturer Ajax Motor		
Description			
Quantity Recd 200			
Signature Adams			

Those thousands of parts in your bins mean cash, just as much as your money in the bank. Every time a part is lost or mislaid you have lost a certain amount of money. It is as important to keep track of all those parts as it is to keep track of your bank account. This illustration shows how easy it is to know the quantity of every article in stock.







# Eliminate Waste by Efficient Selling

Every Effort Must be Made to Effect Economies in Selling Cars.

We Must Stop Doing Things That Do Not Pay and Stop Putting  
Up With Salesmen Who Do Not Sell

**H**OW MANY realize that our selling processes to-day are so inefficient that they amount to more in cost than all the processes of production was a question that was asked by Norval A. Hawkins, director of sales, advertising and service on the advisory staff of General Motors recently at a meeting of automotive men. Efficiency in automobile manufacture has been raised to a very high degree, he maintained, and so far outstrips efficiency in distribution that the costs of making versus marketing cars are altogether out of proportion. In order to bring business back, costs must be lowered, so that the markets may be widened. Up to now we have concentrated our efforts on reducing factory costs and have neglected the greater costs of getting the goods turned into profit through efficient and economical selling.

Great economies are possible in our marketing.

We must stop doing things that do not pay and stop putting up with salesmen who do not sell.

We should be cutting out now the selling wastes, not chopping off our sales efficiency. The way to eliminate wastes is by knowing how to sell, and practising that knowledge after we acquire it. We should be studying salesmanship **SERVICE FIRST** and perfecting ourselves in that kind of selling. And remember that right salesmanship involves fundamental principles of business policy and organization, not just selling talk.

What sort of an advertisement of service is your place of business, for instance? Is your building adapted especially for your representation of your car? Have you an attractive salesroom and a fully equipped service shop? Do you keep a complete stock of parts and up-to-the-minute records to prevent the possibilities of failure in service anywhere? Are you doing effective publicity work to sell your service functions?

I have visited the places of business of a great many automobile dealers who were the worst kind of misrepresentatives of the manufacturers of the cars they dealt in. A place of that sort is a disgrace to the name of the car it displays. It is an insult to every man or woman who might come in with the idea of buying anything there. Clean people won't go into a dirty showroom to look at a clean automobile. They can't be-

lieve, either, that a car in that sort of place could be clean.

## About the Salesroom

In the showrooms of some of these misrepresentative dealers you can find nearly anything under heaven to distract a prospect from actually buying an automobile. The salesroom is not the place for displaying a lot of extra equip-

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Inasmuch as sales concern everybody in the business, they should, in turn, be everybody's concern. Therefore it should be the aim of every dealer that each employee shall be made to regard himself as a salesman and instructed in his function as such so that he may be a good and not a bad salesman. There is not an employee in the industry to-day who does not exert some influence on the sales possibilities.

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ment and repair parts that would scare anybody out of a notion of buying the minute he gets the suggestion of extras and expenses.

The ideal automobile salesroom hasn't a single thing in it except the proper decorations and necessary furniture and the cars on the floor—plus clean, keen, attentive salesmen of **SERVICE FIRST** who never let a prospect put his fingers on the front doorknob without being right there on-the-spot to welcome him and help him. A would-be buyer never gets lost in that sort of a salesroom. Somebody keeps track of him and serves his needs every minute.

The general run of advertising in the automotive industry has been dominated by exaggerated emphasis on quality of product, whereas it ought to sell the ideas of motor travel transportation and traction.

## Good and Bad Advertising

The statement in advertising or in a selling talk of claimed points of superiority in product does not create the desired impression on the prospect that the product is really desirable.

To illustrate with regard to effective

advertising of a passenger car: The prospect is not convinced by a claim that a certain car is the most beautiful car, that another car is the comfort car, that still another is the thrift car. He doubts the truth of such a claim. The salesman of a fourth manufacturer could convince the prospect that the fourth car was more beautiful than the first, more comfortable than the second, and a more thrifty purchase than the third. Such advertising, at most, sells only familiarity with a name. It does not really attach to the product the claimed attributes of superlative quality.

The effective advertisements, therefore, will be of motor travel and transportation as desirable. The prospect will accept statements about that as familiar facts, without question. He also will not resist statements to the purport that he wants to ride handsomely, in comfort, and thriftily. Then, if the advertisement contains the picture of a car evidently handsome, and that looks comfortable, and which is priced on an economical basis, the prospect will get by suggestion and will accept as facts precisely the ideas the distributor wants him to have but which could not be pounded into his head by any claims of superiority in appearance, comfort, or economy.

## Facts Only

In short, the advertisement should state nothing about the product but indisputable facts—such as price, wheel-base, equipment, etc. There should be no extravagant statements of quality of product. And the product should be mentioned only as incidental to motor travel and transport. This idea of motor travel and transport never has been sold with the product completely subordinated. Always the product has been pushed to the front, with some claim of peculiar excellence. In my opinion the advertising of the future will be dominated by the organization which first establishes and which maintains the unique standard of ideas of motor travel and transport to the fore, and product facts of quality implied but seldom stated, to the rear.

## Intelligent Co-Operative Selling

Inasmuch as sales concern everybody in the business, they should, in turn, be everybody's concern. Therefore, it should be the aim of every dealer that each employee shall be made to regard himself as a salesman, and instructed in



his function and shown his opportunities as such, so that he may be a good and not a bad salesman. There is not an employee of a concern representing the industry to-day who does not exert some influence on the sales possibilities of the business. It is impossible to exaggerate the impetus that would be given to sales if there were co-ordinated intelligent direction of the thoughts of all your employed men and women toward a common objective, which would in turn be reflected directly and indirectly in greater sales for each and every one of your organizations.

You should be taking steps to put these thoughts across to your employees right down to the last man.

In order to accomplish this result, the whole organization must be permeated with the selling idea. That is, the principles of salesmanship must be used throughout the business, taking the place of arbitrary policy and using objective methods instead of subjective methods, to get things done.

It is generally admitted now that salesmanship is an art, governed by pretty well defined scientific rules. If

all these rules were generally known and followed, the sales efficiency of business would be tremendously increased. Therefore, a fundamental principle of sales policy should be the development of a sales department, under the direction of a competent sales manager, to include everybody in the business and not just those individuals who came into direct contact with customers, as professional salesmen. It should be part of the function of this sales department to permeate the business with the sales spirit, and to open the eyes of all individuals to their sales opportunities.

# Garageman's Rights Regarding a Lien

Surrender of Possession of a Car, Although it Means the Loss of His Lien, Does Not Mean That the Garageman Has Lost His Right to Recover Amount of His Repair Bill

By H. C. MYERS, B. A.  
Barrister-at-Law

EVERY mechanic or other person who has bestowed labor, money or material upon any chattel such as a motor car, or machine, or implement, etc., has a lien upon it for the amount of his claims, and may retain it until he is paid. But he must keep the article in his possession in order to retain his lien. The lien is lost when he voluntarily surrenders possession of the property. And a recent decision in a United States court is to the effect that the lien is not revived when the machine again comes into the possession of the same garage man, to make repairs, which latter repairs are paid for. In other words the garage man cannot retain the car as under a lien for the first repairs which were not paid for—by letting the car out of his possession the first time he loses his right to a lien.

Of course surrender of possession of the car, although it means the loss of his lien, does not mean that the garage man has lost his right to recover the amount of his repair bill. He can still sue for this amount in the proper court (usually the Division Court). Loss of the lien, means loss of that one method of enforcing payment, and that only.

If the amount of the bill is left unpaid for three months from the date it should have been paid, it may be sold by public auction (but not legally by private sale) to obtain the amount of the charges and costs of sale. The Mechanics' Lien Act of each province includes this lien, and the only variation among them relates to the time and method of advertising the sale; but, they all require that the advertisement give the name of the person indebted, the amount of the debt, a description of the article to be sold, the time and place of sale and, as in other auction sales,

the name of the auctioneer. A similar notice in writing must be delivered to the debtor or left at his last known place of residence, if a resident of that

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## THE LEGAL RIGHTS AND LIABILITIES OF THE GARAGE MAN

Hereafter on this page, we will touch upon some of the legal questions affecting the garage man and the car dealer. What he is entitled to, and what he is liable for, are questions that are being raised more and more frequently all over the country. In the hope, therefore, that these articles may be of some use in clarifying his position they will deal generally with his rights and liabilities. Subscribers are at liberty to write in for advice on any specific point that may be troubling them.

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municipality. After payment of the debt and costs, the balance of the proceeds from the sale must be paid over to the debtor when applied for.

In Ontario and Nova Scotia, one week's notice of the sale must be given in a local newspaper; in British Columbia and Alberta, two weeks' notice in a local newspaper; in Saskatchewan, North West Territories and the Yukon, one month's notice of the sale must be

given beforehand; and in New Brunswick, the advertising is to be done by posters instead of in a newspaper, by posting up in three or more public places a notice of the sale and sending a written notice to the debtor. In Quebec, the article may be retained until payment is made.

If this course is taken to recover the claims under the Lien Act, it is not necessary to sue and obtain judgment first, as this is the remedy the Act provides.

## Garage Men's Rights When There is a Previous Lien

The point however arises as to the lien rights of a garage man for repairs or storage, when there is a previous lien on the car. By far the majority of cars are sold to-day under a conditional sales contract—the buyer pays a portion of the purchase price only, giving notes for the balance and signs an agreement whereby the title of the car remains in the motor car company, or the dealer, until the balance is paid for. When a garage man has a repair bill owing to him on such a car, what are his rights to a lien? In the light of some court decisions it would seem that for storage at least he cannot maintain a lien against the conditional vendor and must deliver the car up to the latter if required. The following are two Canadian cases on the point:

Webster vs Black—Manitoba King's Bench, 1914.

This was an action of replevin to recover possession of a motor car which the defendants detained under a claim of lien for storage. In September, 1912, the plaintiff sold a car to one Jones upon a lien note, in which the title of the car was retained in the plaintiff. Jones kept the car in the de-



fendant's garage, paying \$15.00 monthly storage charges. In October, he broke a wheel and the car was towed back to the garage and left there. The garage man testified that Jones told him to leave the car there until he got it repaired. Jones apparently could not get a wheel, and the car remained in the garage until October, 1913.

Jones made default in his note and the plaintiffs wanted to take the car back, as they were entitled to under their contract. The defendant, however, refused to allow them to do so because of his claim for storage. The defendant set up the claim that when the car was returned to the garage with a broken wheel, he did not receive it in the capacity of a garage owner, but as a warehouse man, and that as such he had a lien for storage. The judge however found as a fact that there was no change in the relationship between Jones and the garage man, and that the latter at no time became a warehouseman.

The defendant further claimed that after the wheel was broken he made two small repairs for which he had a lien, he had straightened the fender, etc. The trial judge stated that if there had been any evidence that Jones had ordered the repairs made, the garage man would be entitled to hold the car until these repairs were paid for; but that there was nothing in the evidence to show that Jones gave any such instructions. He therefore held that the plaintiffs were entitled to recover

the car freed from all claim or lien of the defendant.

#### The "A and S" Company vs. "H"

The plaintiff sold a car to a customer upon conditional sales agreement, under which the title of the car was not to pass to the customer until paid for. The defendant company owned a garage in which the customer kept the car. The customer made default in payment of his notes, and the plaintiff company pursuant to their contract, became entitled to possession of the car. The defendant company refused to allow it to be taken without the payment of the amount due it. They set up the somewhat novel plea of being entitled to a lien as the keeper of a livery stable within the meaning of the "Innkeepers Act" and alleging that a motor car is a carriage within the meaning of the statute and that a garage is a livery stable. The "Innkeepers Act" states that "every keeper of a livery stable or a boarding stable shall have a lien on every horse or other animal boarded at, or carriage left in, such livery stable."

The trial judge, in giving judgment stated that the Legislature when passing this Act did not intend to confer, nor did confer any rights under it on the garage man. He acknowledged that an automobile can be described as a carriage, but held that the whole context of the Act showed that the Legislature was speaking with reference to livery stables only. The word stable

may in time come to have a wide enough secondary meaning to cover garage. Railway men speak of a roundhouse as a stable, and engine men as hostlers, but it is not in this figurative and inaccurate sense that the Legislature uses the word. Furthermore the trial judge stated that it would require express words in the Act to give a lien upon goods of a third party. He therefore gave a judgment for the plaintiff.

It would seem therefore from these decisions that a garage man cannot enforce a lien for storage on such a car when the conditional vendor is entitled to recover it. The writer of this article has been unable to discover a Canadian case dealing directly with the question as to whether he could establish his lien right upon such a car for repairs. Certainly it would seem from the words of the judge in the case of Webster and Black that if it could be proved that such repairs were ordered by the owner of the car, that the garage man could hold the car until the bill was paid. In the United States there is a direct conflict on this point. In some States it has been decided by the courts that the lien of a repair man on a motor vehicle, while in his possession, is superior to the title of a mortgagee or a conditional vendor. But in other States a directly contrary view had been taken.

The writer would be glad to hear from any of the readers who can give him a case directly covering the point.

## Stimulating Winter Closed Car Sales

Efficiency in the Sales Staff is the Biggest Factor in Selling Cars During Winter. This Story Tells How Closed Cars Can be Moved and is Taken From Actual Experience

**T**HE BIGGEST factor in moving cars in the winter time is an efficient sales force. Practically every car delivered from a dealer's establishment in the period between December first and March first has to be really sold and represents concentrated effort and efficiency in the selling staff.

The writer is familiar with two sales forces, one of which does a steady yearly business while the other spurts during the best selling season, and slackens up in the off season.

The one firm has a force of six or seven men who have been on the staff steadily for from five to ten years. They all started as inexperienced men and were trained by the sales manager until they become highly efficient with excellent connections. They are all

earning good salaries, are contented, and have reached such a point of efficiency that between new business and "repeat orders" they can almost estimate what their earnings will be next month. Consequently they can count on steady month to month business and are of real value to their firm.

A sales force of this description can, and does, bring in good winter business.

The other sales force we have in mind is composed of about twenty men, most of them "transients" in the car game, with two or three of them experienced men. When sales slacken up, this firm takes on additional men, most of whom are inexperienced, in the hope of increasing business. The sales manager cannot find time to teach the men the business. A new man, if he is lucky, may close one or two sales, barely mak-

ing living expenses. He sees the older men getting the lion's share of the sales, gets discouraged, works along the wrong lines, and finally starts to look around for something else. In the end he leaves and another new man takes his place. Probably he had come into contact with a few prospects, and, through inexperience, lost them, thereby losing money for the firm. With few exceptions the man who takes his place is just as inexperienced and proves as costly to the firm.

The one firm sells a certain number of cars with an overhead of seven salesmen, the other sells the same number with three times the sales force to look after, and, probably, a shifting force of about 50 men per annum.

Which firm has the better sales force?





When it is desired to feature closed cars, much attention should be given to their proper "get-up" and location in the salesroom. The illustration gives an admirable idea of how to feature closed cars.

In selling, numerical strength counts for nothing against the strength of efficiency. The surest way to obtain sales results in the winter is firstly to build up a really good sales force and secondly, to utilize every possible scheme that will tend to attract business in the "out of season" period.

#### Attention to Detail

In a good many cases little attention is paid to the proper "get up" and location of the closed car in the sales room. When it is desired to feature the closed car, it is advisable to have all such models set apart from the open cars in the sales room. A prospect who is interested in a closed model might have his attention and interest distracted if the open and closed cars are bunched together, and, once a man's attention is drawn from the subject in question, it is often difficult to regain it.

If a prospect is sitting in a closed model on one of those stuffy, heavy days we get occasionally during the winter, listening to the arguments of the salesman and the windows in the car are closed and the interior generally stuffy, his attention is not likely to remain long on the sales talk, his chief desire being to get out of the car where he can breathe fresh air.

A few minutes each morning might well be taken by the floor man in opening or closing car windows according to the weather, and in seeing that the windows which so often stick in a new car, are easily opened or closed at the wish of the customer.

#### Seasonable Demonstrations

The purpose of a closed car is to give the utmost efficiency and comfort to its owner in all weathers. This can best be shown to the prospective purchaser by actual demonstration. The more inclement the weather the better can the prospect realize how comfortable and serviceable is a closed car.

Particularly is this so when the prospect already owns an open car and knows the discomforts attendant upon driving in winter storms.

With such an obvious selling point at hand, it is strange to find occasional

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The utmost consideration should be given to the proper arrangement of the closed car in the showroom. Too little attention has been given to this detail. Closed models should not be mixed in the display with open models. Another point often overlooked is the proper ventilating of cars during stuffy weather. Windows of closed cars should be opened or closed according to weather conditions so that customers are not inconvenienced when sitting at the wheel in the showroom.

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sales managers who will not permit demonstrations in bad weather owing to a mistaken desire to protect the finish on the car.

#### Letter as a Silent Salesman

While the mails are being used daily in an effort to bring goods to the attention of prospective customers, the methods employed by a large percentage of dealers defeat their own ends.

When a letter is obviously a circular it usually finds an end in the waste basket without perusal. The ordinary circular letter is usually unmistakable even when unopened. A very good way of using a letter as an advertisement is to have the envelope addressed by hand and posted to reach the prospect with the breakfast mail in the guise of a friendly letter.

In the winter time, a judiciously-worded letter pointing out the comfort of driving to the office in a well-appointed closed car, might be the means of instilling a desire to buy in a prospect, even in the minds of those who are driving open models.

If the letter is sufficiently interesting to be read from beginning to end it will at least cause comment, and if the comment be favorable the salesman who follows up the letter will find the prospect in a receptive frame of mind.

#### The Closed Car as a Christmas Gift

Each year there are an increasing number of cars being given as presents and the closed car is naturally a more appropriate Christmas present than an open model.

During displays last winter, we noticed one of more than usual attractiveness and originality. The entire window space was given over to this display which consisted of a large box, wrapped and beribboned as a Christmas present usually is. From the centre of this box, a sedan, beautifully finished, protruded half its length like an article half withdrawn from its parcel. The customary greeting card in proportionate size was attached to a door of the car and over all was sprinkled artificial snow. A background of Christmas decorations was employed and the lights were arranged to give all possible prominence to the display.

This window drew more attention than all the other windows put together and excited very favorable comment, and, we believe, brought very attractive returns to the firm originating the idea.

In these days of specialized window dressing, the mere sight of one car, undecorated and with no particular background setting, will attract little attention in the festive season, when brightness and originality hold sway.



# Turnover—What It Is, What It Does

Deliberations of the University of Nebraska on Subject Vital to Every Retailer—Rate of Turnover is the Measure of a Manager's Ability—Capital Turnover Takes Three Forms—Six Reasons Given for Importance of Turnover

**U**NIVERSITY of Nebraska has recently embarked upon a research dealing with business and business methods. It is one other evidence of the growing interest and importance attached to the science of retailing and the economy of distribution. In a bulletin they have just issued on the question of turnover, they deal with some of the fundamentals of business success and administration which it is well to keep ever fresh in the mind. This year, more than many that have passed, is one in which great attention is being given to the question of turnover and its importance to the well-conducted business. The term, turnover or stock-turn, is a familiar one and the rapidity with which a stock of merchandise or commodities moves in trade may be taken as a measure of a manager's ability.

## What is Stock Turnover?

In defining the term, turnover, the bulletin of the Nebraska University says:

To the manufacturer who makes over the form of the materials which he buys before he resells them at an increased value, the rate of turning his entire investment in working capital may be more significant than the rate of turning that portion invested in stock of materials or commodities. For him the cost of goods sold consists not alone of purchases of materials, but also of labor in the form of wages paid, fuel, supplies and other elements of manufacturing, and turnover is consequently a more complex matter. He usually conceives of turnover as meaning the turning of his working capital as a whole rather than of only that portion which is immediately invested in merchandise materials.

Capital turnover may, therefore, be considered as taking three forms:

In the first place it is the turning of the amount of capital invested by the merchant in merchandise. This rate may be found by dividing the cost of goods sold by the average amount of working capital invested in merchandise during a given period.

In the other two forms turnover, as viewed by the manufacturer, may refer either (1) to the annual rate of movement of the entire working capital invested in his business or (2) to the rate of turning his total investment of capital, fixed and working, which may be

employed in the business. These two forms of turnover may be found by dividing in the first instance, the cost of goods sold by the average amount of the entire working capital, and in the second instance by dividing by the amount of the total investment. The former method gives the turnover of the entire working capital of the manufacturer, and this corresponds roughly to the merchant's stock turnover within a given period. The latter method shows the turnover of the total invested capital. Each one of these rates is important and must not be overlooked but the turnover of working capital is given particular attention because of the fact that it can be speeded up and managed more advantageously than can that of the total investment.

## Importance of Turnover

Six reasons are assigned for the importance of turnover to the successfully operated business.

1. Increasing the rate of stock turnover is one means by which a manufacturer or a merchant may increase his sales of goods without a corresponding increase in expenses. It must be borne in mind that operating expenses include both indirect, or fixed, and direct expenses. The former include such items as insurance, rent, interest on borrowed money, and taxes, while direct expenses consist of wages of the sales force, advertising and the like. A high turnover distributes the fixed expenses over a larger number of units, and thereby reduces the cost of handling each unit sold. So long as the fixed expenses and the profits on each unit sold remain the same, increasing the number of annual turnovers will make possible a greater net profit on the same capital invested in the business.

Even though the percentage of profit on an article is only 15 per cent., if it is earned often enough, in a year the turnover on money, or rate of profit on investment may be many times 15 per cent. It has been found that an article like Uneeda Biscuit may turn over as many as 52 times a year, and a dollar invested in such goods might, therefore, earn the margin of profit 52 times.

A dealer might earn satisfactory profits on a five per cent. margin of profit on an article, if he sold it often enough; and he might easily lose mon-

ey on an article offered at a 100 per cent. profit margin, if he carried a large stock and rarely made a sale.

2. It is necessary to know what the annual turnover is, in order to know just what margins to add to the cost price of the different commodities handled. And the average net profit desired can be best determined in this way. The business man or merchant, must know, and not guess, how many times he sells out completely the value of his stock in trade in a given period, and relate that number to the percentages of gross profits on each line handled in order to gain the general average of net profit desired. For example, if a stock of goods turns five times a year, and, assuming that each article in the stock turns with equal rapidity and with its proper percentage of total expenses added to its cost price, a net profit of 5 per cent. could be earned by setting the selling price only a little over 1 per cent. above the cost price.

If the annual cost of doing business is 25 per cent. of the total sales, the margin of gross profit, or the mark-up on the cost of individual articles, must be sufficient for all articles sold to average 25 per cent. on their cost. Obviously, this does not mean that each commodity must bear a 25 per cent. margin or spread. The vital question for the business man is always how much profit the dollar invested can be made to earn in selling the article.

3. In these days of public outcry against current prices a rapid turnover is an advantageous way to meet the high cost of operating a business. When costs rise with selling prices fixed, or when selling prices fall with costs remaining the same, dealers must buy and sell on narrower margins of profit. Under such conditions the margin of gross profit is reduced, yet small profits on a larger number of units, totaled for a year, may equal or exceed, the net gain derived from stock carrying greater gross profits but turning less rapidly.

4. Dividing or scattering the costs of doing business over many turns enables the merchant and business man to meet competition, whether of new or of old firms.

The experience of two Indiana stores may be cited: "Rapid turnovers, for example, are to-day securing the trade of a new five-story department store in a

(Continued on page 45)



## New Maxwell Club Coupe

**T**HE MAXWELL Motor Company of Canada, Ltd., has announced a new body model. The car is to be known as the Club Coupe. Quarter windows which drop full length in place of the solid, fabric-covered rear quarter sections, generally incorporated in the design of the 2-passenger coupe. These windows, together with an exceptionally large rear window, give unobstructed vision in all directions. The driver may signal easily through the adjustable quarter window instead of through the door.

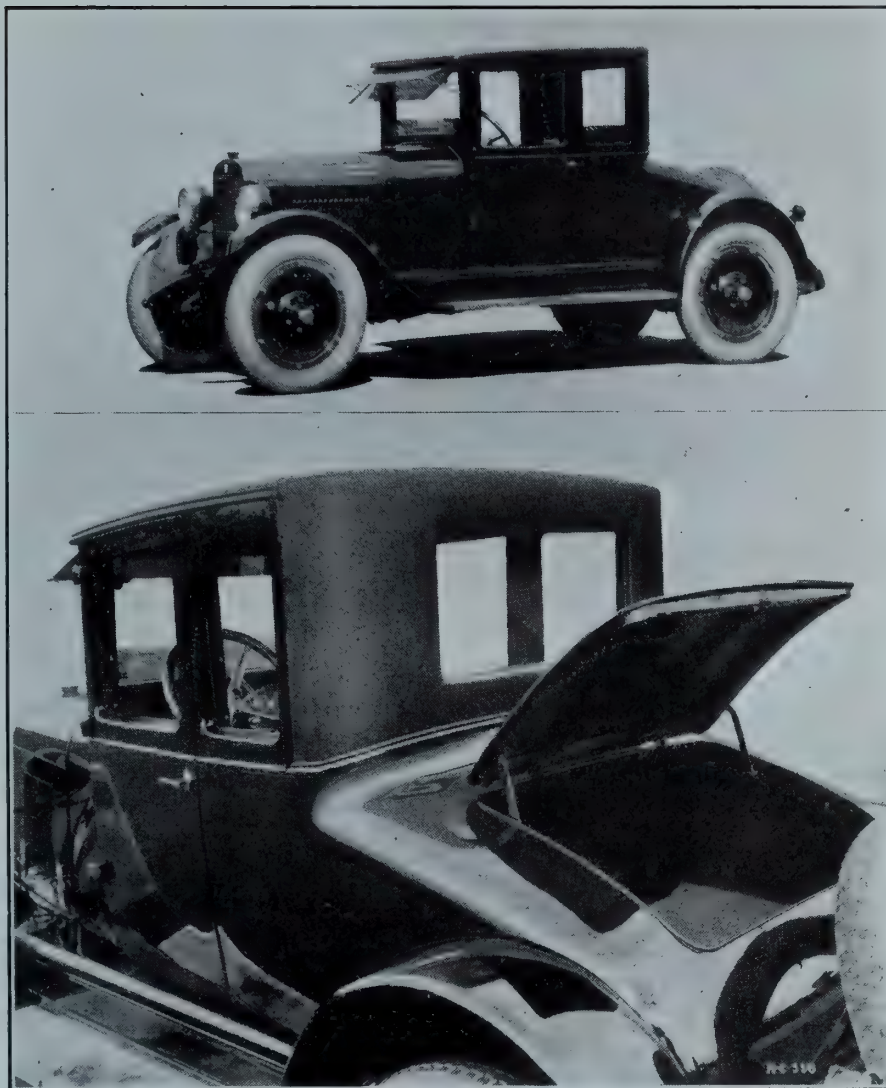
The seating space in the club coupe is positioned as in the Maxwell roadster. Cushions and back rest are deep.

Ventilation has received particular attention and is secured by the extra quarter windows and a special windshield. Both sections of the windshield swing outward, the upper half being hinged from the top and lower from the bottom. The entire assembly is firmly set all-around in a rabbet. This construction is water tight.

Seat and back rest are upholstered in genuine leather and the upper section is covered with broadcloth. Hardware of satin finish nickel is used. A standard Yale door lock is provided and a feature, often missing in the appointment of the 2-passenger coupe, is the heavy roller curtain for the rear light. A large deck compartment gives room for sample cases or luggage and is equipped with Yale lock. Another compartment for small parcels is located inside, immediately back of the seat.

Equipment includes rear vision mirror, windshield wiper, windshield visor, standard dash and instrument board, walnut steering wheel with aluminum spider, floor carpet and heater.

The heater is of the ventilating type and is placed on the right side of the toe board.



Above: Maxwell club coupe. Below: Rear view of coupe showing compartment for parcels.

## Wills Sainte Claire Brougham

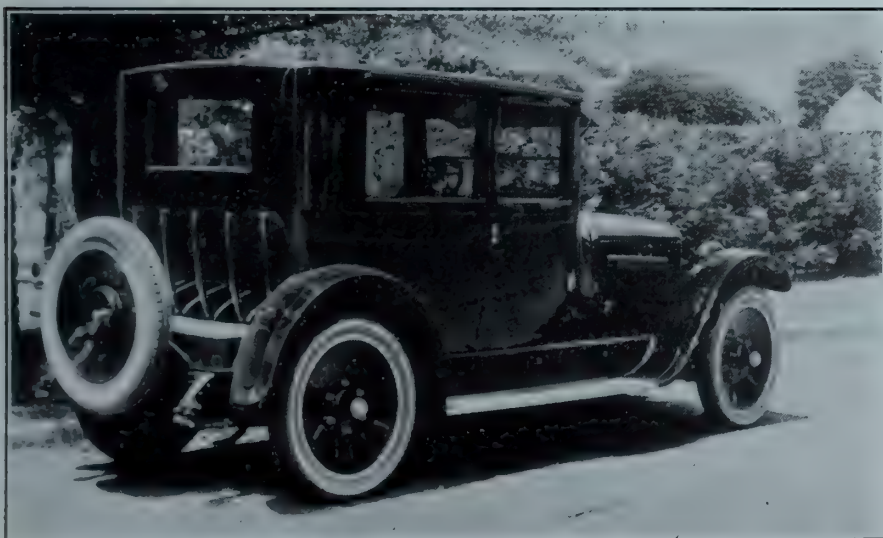
**A**N interesting addition to the Wills Sainte Claire line is a new five-passenger brougham. The new body

combines smartness, comfort and general utility. The brougham is provided with two doors of unusual width. The front seat consists of two deeply upholstered chairs each of which tip forward. This permits entrance to the rear seat from either side of the car.

The standard colors are blue and maroon with the upper panels in black. The upholstery is granite weave cloth or gray velour. A trunk platform and vertical nickel bars on the body panel are provided at the rear for tourists. The brougham is mounted on the standard Wills Sainte Claire chassis.

The specifications in brief are as follows: Engine, eight cylinders, v-type with overhead valves and camshafts, stroke 4 inches, bore 3¼; tilting headlights magnetically controlled from steering column; special disc wheels, spare wheel standard equipment; road clearance, 9¼ inches; wheelbase 121 inches.

All parts subjected to strains, stresses and heavy wear are made of Molybdenum steel.



The most recent addition to the Wills Sainte Claire line, the five-passenger brougham. Note the trunk platform at the rear and nickel body bars to protect the body finish.



# Insurance as a Business Stabilizer

Dealers Are Rapidly Recognizing the Principle of Protection Against the Unforeseen, and Are Endeavoring to Cope With the Danger of Building up a Reserve Through Business Insurance.

**T**HE soundness and legitimacy of the general principles of insurance have long since been established. The insurance business has a more scientific foundation than any other business in existence—a foundation mathematically and statistically sound. It is an arrangement by which unexpected and incomputable burdens and losses are equitably distributed among a large number. An associated group of men affords to each of its members protection against unlooked for casualties. Each must pay for having his risk assumed by the others. The official insurance company or organization is simply the agent to collect the premiums and distribute the losses.

All insurance is based on the law of averages. Nothing is so uncertain as the future loss on a specific risk. On the other hand nothing is so certain as the average future loss on all risks. Experience respecting the mortality of human beings is now so comprehensive as to place life insurance among the exact sciences. Retail trade, manufacturing, farming, and all other commercial pursuits are, after all, merely adventures, when compared with the life insurance business. Stocks and bonds—real estate, mining, railroad, industrial—so far from being an investment, are the merest gamble, when considered in comparison with a life insurance policy.

This is so obviously true that it seems trite to repeat it. And yet the average business man has apparently not considered a life insurance policy in the light of an asset to his concern. While he takes out policies covering fire insurance, tornado insurance, burglary, plate-glass, liability, title and surety insurance, he has very evidently hesitated and demurred and procrastinated when it came to insuring his life for the benefit of the business. This in spite of the fact that management is the largest single element in the success of any business. How many of us have known businesses to run along prosperously for years under the management of a certain individual, and then go on the rocks almost immediately upon his death?

Many business organizations are around one man, or at least a few men. "Every great institution," says Emerson, "is the lengthened shadow of some man." Every business has its peculiarities and mysteries, its crooks and turns, a knowledge of which cannot be

By G. W. HAFNER

acquired by intuition. Years are required to master the details of any branch of trade, and there are some departments of commerce in which one may go on learning for a life time. The shrewdest business man will admit, after twenty or thirty years experience in a certain business that, though they

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Every dealer realizes that a really good partner can be replaced only at considerable cost. What more necessary then, than that your business should be protected against a loss of this nature? A partnership is automatically dissolved by death of either partner and such a contingency cancels all existing credit arrangements. It is of vital importance to have reserve funds immediately available. Business insurance provides this emergency capital.

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thought themselves wise when they embarked in it, they were really very ignorant, and that they have not yet exhausted all the facts relating to it.

Personality is the energizing power in industrial organizations; it is the keystone in nation-wide enterprises. "Big business in this country is built around big men with big ideas," not around weak-kneed figure heads with shortsighted outlooks. The inexperience, the vacillation and the lack of ability on the part of the survivors of a concern are a prolific source of business losses and of business failures.

## Meeting Unforeseen Contingencies

Let us analyze this for a moment. Industry and commerce are made up of seven elements. Of these seven elements, capital is responsible for one, labor for one and management for five as shown:

1. Funds—Capital.
2. Buildings—Management.
3. Equipment—Management.
4. Organization and methods—Management.
5. Orders—Management.
6. Merchandise or materials—Management.
7. Work done—Labor.

This effect of good management in business is often forgotten. Management is the only foundation upon which labor and capital can be utilized with profit to the business itself, and satisfaction to the public. It must point the way for capital and labor to do their part, and must be able to conduct the business of producing and profitably marketing the product, to handle the plant and direct the labor agencies for that purpose, if success is to be achieved. If not, the business fails, and then capital and labor suffer. Everyone realizes that a really good manager can be replaced only at an increased cost. Men at the top are always at a premium. They cannot be replaced without heavy expense and loss.

What more necessary, then, than that the individual business should be protected against the loss of its guiding spirit? Why should not business firms be prepared for such a contingency, which might arise at any time? Business is warfare. It, too, has its decisive moments, when success or failure, victory or defeat, must hinge upon reserves of some sort. It is not enough that we have resources sufficient for ordinary occasions. We must be prepared for unexpected crises, for incredible emergencies; remembering that, as the French proverb has it, nothing is sure to happen but the unforeseen.

Business men, in general, recognize this principle of protection against the unforeseen, and endeavor to cope with the danger by building up a surplus, a reserve, or sinking fund against the time when such contingencies materialize. This practice is quite common among business firms, whether they be sole proprietorships, co-partnerships or corporations. It is a practice which confesses the need for protection. In this case, however, the risk is decreased only by the amount saved by the business, and put into the surplus account or the reserve account. It is by no means equal to insurance as a means of substituting certainty for risk.

## A Business Stabilizer

But there is another phase of this subject that is too often overlooked. Not every business man realizes that gains and losses in business move largely in cycles. Many failures result from the assumption that good times are going to keep up forever, whereas, in fact, there is no such business condition as constant good times.



The following table gives the years in which seven distinct panics, previous to the one of 1920-1921, occurred in the United States, together with the number of months that elapsed in each crisis between the time when business began to go down-hill and the time when the lowest point of the depression was reached, and the number of months between the time when business began to recover and the point when normal conditions were again reached. Life insurance is a stabilizing force, destined more and more to reduce and absorb the shocks of these financial vicissitudes to which business is everywhere subject.

Period of Depression	Time from Start To Lowest Point of Depression	Time from Lowest Point To Normal Business
1874—1876	7 months	13—21 months
1884—1885	8-9 months	13 months
1893—1894	9 months	15 months
1895—1897	7-10 months	16 months
1907—1908	8 months	16 months
1911	2 months	5—7 months
1914—1915	7-13 months	13 months

#### Increasing Working Capital

Again, another use for life insurance is to provide additional working capital. According to the mercantile agencies, the cause of a little more than 37 per cent. of the legal insolvencies of the United States is "lack of capital." This is rather a vague phrase which, in the great majority of instances, should probably be interpreted to mean "lack of

working capital." For every man who thrives in business, we can find scores of men with whom each day is but a desperate struggle to keep their heads above water. And for every one who retires with money enough to pass his closing days in ease and affluence, there are literally hundreds who would wind up the vicissitudes of a long life of toil in utter failure, and spend their last days in trying to keep the wolf from the door.

These facts will seem incredible to those who have never weighed or investigated the subject; and yet the proofs are plain to every man who has his eyes open, even in a measure, to the changes going on around him. Go into any city or large town with which you were acquainted ten years ago, and you will be amazed to see how many signs that once greeted the eye on the stores and factories have been exchanged for new ones; how many names, once familiar as "household words," have been blotted from the business directory.

Now, this lack of working capital may be overcome by an appropriate use of life insurance. It is hardly necessary to remind business men that from 95 to 100 per cent. of the cash surrender value of an insurance policy can be raised on the security of such policy. Even insurance that does not carry with it cash value upon surrender is looked upon by bankers as excellent credit support under certain circumstances. If the borrower is a man of known integrity and ability, but without capital, term in-

surance, or insurance in other forms, on the life of an applicant for a loan will in all likelihood be acceptable to the banker in lieu of capital. It is related of John Wanamaker, that he purchased sufficient life insurance to secure a loan of a million dollars from bankers, when he wanted to expand his business. He is now insured by his company for \$3,500,000.00. The Firestone Tire and Rubber Company has its president insured for \$1,000,000.00. Adolph Zukor, president of the Famous Players Laskey Corporation, is insured for \$3,000,000.00. The New York Yankees thought it worth while to insure Babe Ruth for \$200,000.00.

These few examples give a clear idea of what big business thinks about life insurance as an asset. Policies are now being written, frequently in large amounts, to cover losses contingent upon the death of partners, the presidents and managers of corporations, and others upon whom success is largely dependent. This is a most satisfactory means of safeguarding the credit of any concern when death occurs. The death of a member of a firm may involve, not only the loss of his active co-operation in the management, but also the withdrawal of his capital from the business. Creditors are quite likely to doubt whether the business will continue to be solvent. The situation would be materially improved, for any business, if they were informed that the company, while losing a capable officer, had collected a large amount of insurance.

## How to Cure a Rumbling Car

The Cause for the Rattling Sounds Heard in Cars After They Have Been Run a While is Not Always Apparent. The Writer Locates the Probable Trouble and Gives Useful Suggestions

By D. A. HAMPSON

**A**FTER a car has been used a while, and even with some new cars, a rumbling sound appears that is very annoying to the owner, and often gives the repairman considerable trouble in correcting. On a smooth road the car will run quietly enough but when a rough patch is encountered or in crossing a railroad track a rumbling, rattling sound speaks forth together with a shaking that is transferred to the body of the car.

The cause for this noise is not always apparent. Invariably, the cause of the trouble is due to spring bolts and shackles and play at these points. It is not confined to any one part of the car, though it seems to be toward the front end when the car is in motion; the driver will say that it seems first down on the right side and then it may seem to be on the left just under the foot board. Actually, there may be as much play on

the rear springs as on the front ones but the sound from the front ones carries up and to the occupants while that from the rear simply floats away with the smell of burned gasoline.

Fig. 1 shows a typical spring shackle suspension. A bracket is riveted to the car frame and has a hub through which the upper shackle bolt passes. At the lower end of the shackle is the spring eye with a similar bolt passing through a bushed hole. The shackle itself is a forging or stamping or steel casting and is made H-shaped as shown.

Both of the shackle bolts are subject to wear and so are the holes through which they pass, i. e., the spring bushing and the hole in the riveted bracket. It has been the writer's experience that some makes of cars show

a decided tendency to wear one hole more than the other, for instance, on some cars, the spring bushing wears fastest while on some others, the hole in the bracket wears vertically at each end due to side sway.

Where the bracket hole is elongated, the remedy is to drill it out with an electric drill, ream it to some standard size, and put in a bushing. The bolt will also have to be replaced for it wears small at either end at the same time. This repair is not made as frequently as it should be for that trouble but it certainly is worth while.

The remedy for a worn eye bushing is obvious. Put in a new bushing and a new bolt. Reference to Fig. 3 shows the condition of worn spring eyes—thousands of cars are running even worse than shown, with the bushing worn clean through at the bottom and the bolt resting right on the rough surface



of the spring; if left unattended, the ultimate result is for the bolt to break in passing over some bump and the car to flop over that way—"list to starboard," as one ex-sailor expressed it.

Owners are not intentionally neglectful and the reason this form of wear goes on so far is because it is hard for the uninitiated to locate it. The service man by suggestion can frequently interest owners in having this repair made, resulting in more profit for himself and

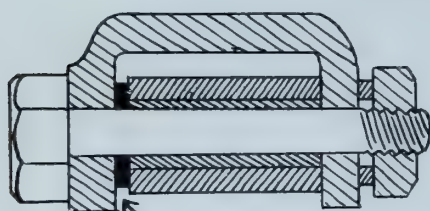


Fig. 2.

greater satisfaction to the owner. If a bar or spring leaf or a heavy screw driver is placed in the space marked X in Fig. 1 and is pressed downward, the amount of wear may be seen instantly. Using the shackle web as a fulcrum, the spring may be depressed, against the weight of the car which normally holds the parts rigid and that is why the inexperienced person doesn't notice the wear.

All repairmen are aware, in a general way, of the play which is apt to develop as we have described. But few of them know of the effects of end play. This is even a more flagrant source of rumbling than hole wear. The spring in Fig. 1 is purposely drawn narrower to emphasize the space that exists and that is the cause of noise on a rough road.

If this space is wide enough, fibre washers may be inserted but in most cases the space is so small that a practical thickness of washer cannot be used. The best remedy is to make a hacksaw cut through the web of the shackle. Then the spring bolt is free to close up the opening and so quiet the noise. The same trouble may appear at the upper end of the shackle, though to a lesser degree.

The neatest looking front end is the gooseneck which has an enclosed forked end with the spring entering a pocket on the under side. All the better cars are built this way and many of the cheap ones, though recent manufacturing economies have caused some builders to resort to the cheaper open fork. This pocketed spring end is an unsuspected source of rumble and rattle. The front end of a car is subject to more shock than the rear because it is the guiding end while the rear merely trails along and the front end of the spring receives its full share.

Fig. 2 is a cross section through the front bolt hole. There is no good way to squeeze the sides closer to the spring and thus make up for the wear. But a

fibre washer may be inserted as shown and will effectually quiet the noise at this point. Because it has to be inserted from below and there is no good chance to see, one is apt to slight the job. But while the car is down, there is no excuse for doing a poor job—make the washer a close fit and use a washer of substantial thickness, not less than 1/16 in., filing a little off the spring if necessary in order to get this in. Too thin a washer will crumble if an attempt is made to drive it in.

### Safety Always

A word of caution is due at this point. In order to do this kind of work properly, the car weight must be taken off the bolts. Because of the camber of springs it is necessary to raise the car considerably higher than when chang-

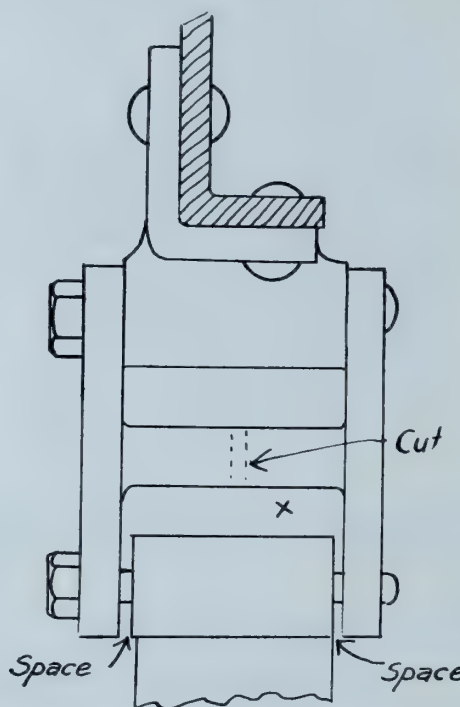


Fig. 1.

ing a tire because the car's weight normally holds the spring flatter and when the weight is removed the spring returns to its original form before it releases the tension on its bolts. In the absence of floor cranes or overhead track the car should be thoroughly blocked before starting any work. It is time well spent. A man is prone to think it will be a short job and not worth the time to block up rightly but the pulling and hammering is going to loosen the insecure support every time—and with disastrous results.

A large part of wear and noise would be avoided if spring members received proper lubrication. The several pressure systems now on the market are doing much to that end. Most cars are not so equipped and, in nine cases out of every ten, spring bolts taken out are found to be bone dry. Oiling or greasing may have been done faithfully but dirt, dust, rust, and water have got in their work

and the feed hole will be found caked up. A periodic cleaning would avoid this stopping up, make a smoother riding car and a quieter one. Spring bolts usually have a flat cut on them which is intended to form a space over which grease and oil can spread as it emerges from the hole but by the time the car has reached the noisy stage, this too, is stopped with a black, hard substance. Often, it is advisable to turn the bolt so the hole faces a space instead of pointing directly toward the loaded part—for



Fig. 3.

instance if the hole in Fig. 3 pointed diagonally upward instead of straight down; by using soft grease, the chances of getting the lubricant throughout the length and breadth of the bolt are then increased. When bolts have been removed and well cleansed, the writer believes that oil is better than grease and surer to fulfill its mission—even oil from the lowly squirt can.

## You Can Sell Accessories for Christmas Gifts

(Continued from page 10)

would give greater pleasure on Christmas morning than a letter worded as follows: "We have been instructed by ..... to clean carbon and grind valves on your car at your convenience." This can be used with the sale of piston rings, brake lining and many other jobs making a very useful and sensible present.

The jobber's salesmen can frequently help with very valuable suggestions and it is sometimes possible for them to supply merchandising helps in the way of stickers, tags, etc. A good plan is to talk it over with them the subject of Christmas business and, if possible, get the benefit of the experience of other dealers in other towns who have made a success of Christmas merchandising in past years.

### Not Too Early To Start Now

The department stores have already made preparations for their annual big business, jewelers have laid in big stocks and are preparing to take advantage of Christmas opportunity. They do it so early because they are sure of the demand.

Now is the time for the automotive dealer to make 1922 the big automotive Christmas and secure the profits that are to be had by displaying the merchandise and "Asking 'Em To Buy." Do it now!



# Modern Practice in Battery Service

In This, the Second of a Series of Articles on Battery Repairing, the Writer Deals With the Kind of Equipment, and its Approximate Cost, Necessary to Give Efficient and Satisfactory Service

By G. R. ARCHDEACON

**H**AVING now established an ideal of service in the operation of the battery service station as outlined in the first article of this series, it now becomes necessary to consider the various items of equipment necessary for the repair, charging and testing of storage batteries.

It has often been written "a man is judged by the company he keeps." Such a conclusion also applies to the class of equipment you employ in your battery work.

If you would gain the full benefit of the psychological effect of Impressive Service, you must do so by the application of Impressive Equipment to your daily routine of testing and repairing.

Just place yourself for a moment in the place of a customer who desires his battery to be tested. Possibly he does not know you personally, consequently he has no basis for judging either your business integrity, or your technical ability. The impression he will carry away with him will be entirely based upon three things:

- (1) Your manner in receiving him.
- (2) The general appearance of your service station.
- (3) The class of instruments you use in making the test on his battery.

## Need For Equipment

Do not overlook the fact that the manufacturer has already "primed" him with the fact that his battery is a complicated chemical machine, needing the constant vigilant attention of the service man. He has been warned of the necessity of repeated inspections and tests of scientific accuracy.

Therefore if you approach his battery with no better testing outfit than an old broken battery jar, containing a small amount of some doubtful looking "distilled water," a worn out, dilapidated looking hydrometer syringe, and perhaps a mouldy looking pocket voltmeter, no larger than a vest pocket watch, there is every excuse for the customer arriving at the conclusion that these "battery experts" are a joke, and that the best thing for him to do is to buy a bottle of distilled water (which he feels reasonably certain is distilled) from the nearest drug store, then a small pocket voltmeter and a hydrometer from an accessory house, and Hey! Presto! he is a "battery expert."

Recently the writer read in one of our monthly periodicals an article written on batteries, for the benefit of the

ever increasing crowd of radio fans. In this article the writer came out with a plain statement that "not one battery service station man in one hundred un-

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For a sum of \$600 a splendid battery department can be supplied with all the necessary equipment to handle a good business such as would be needed in the average town. In nearly every garage there are one or two mechanics who attend to ignition and electrical troubles. It is therefore an easy matter to have such men trained in storage battery work.

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derstood anything about the storage battery," and proceeded to advise his readers to use their own common sense in handling their batteries themselves rather than risk them to the "tender" care of the service man.

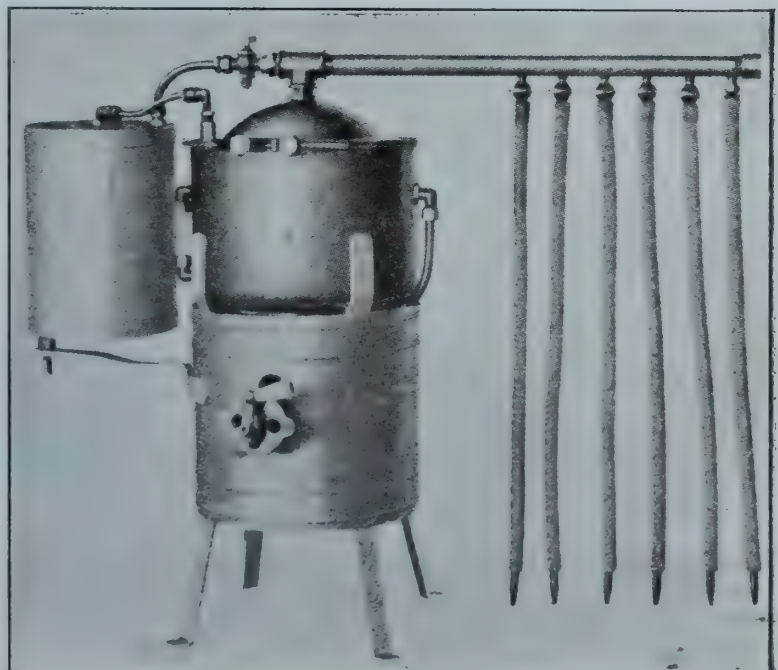
How did such an impression develop, and who is responsible for such ideas taking root?

The author is of the opinion that the writer of the aforesaid article had had experience of a battery service man whose equipment had the appearance of having been picked up in the "Ten Cent Store," and was forever disillusioned concerning the necessity of any scientific equipment, either mental or physical.

The battery department is one in which the opportunities for the establishing of friendly relations and good will amongst the customers exceed the opportunities presented by any other department in the automotive trade. There is no department of the automotive trade, if properly run, that realizes such generous profits. Furthermore there is no branch of the trade that can be operated with such a small capital outlay.

## Capital Necessary For Equipment

To enable readers to estimate the capital investment necessary to equip a battery service station, a list of the complete equipment is given on next page:



A battery steamer and still is a necessity in the service room.



1 Rectifier, 10 battery size ....	\$140.00
1 steamer and still combined ..	30.00
1 lead burning outfit .....	35.00
1 plate burning stand .....	7.00
1 set of post builders .....	1.00
6 hydrometer syringes .....	6.00
1 thermometer .....	1.50
1 Glass water carrier and battery filler .....	6.00
100 terminal clips .....	11.50
1 brace and drills .....	5.00
1 kettle for compound and ladles	1.50
2 shave hooks .....	.50
3 sets of pliers .....	5.00
1 ratchet screwdriver .....	2.00
1 separator cutter .....	5.00
1 rubber apron .....	2.50
2 rubber gloves .....	5.00
Hammers, files, knives, scrapers, etc. ....	7.50
1 low reading voltmeter (portable) .....	8.50
1 discharge meter (portable) ..	15.00
1 discharge set (non-portable) .	50.00

\$345.50

It is necessary also to obtain a stock of rental batteries. These are let out on hire to the customer at so much per day whilst the service station is recharging or repairing his battery.

As these are revenue earning instruments, and in time will pay off the capital expenditure incurred in their purchase, they should be considered as an asset rather than a liability. However, we will treat them as a capital expenditure without regard to their revenue producing ability.

All battery manufacturers make a rule of supplying their agents with special batteries for rental purposes. These are always branded by the manufacturer "Not For Sale." Therefore they supply them at much lower prices than the regular battery.

In starting off it should only be necessary to install 12 rental batteries; these should be assorted as follows:

#### Rental Batteries

7 - 6 volt, 11 plate size at \$9.00	\$63.00
4 - 6 volt, 13 plate size at \$11.50	46.00
1 - 12 volt, 7 plate size at \$15.00	15.00

\$124.00

As the business develops more rental batteries will be needed; these may be purchased from time to time as required. It is frequently possible to "patch up" an old battery that has been taken in as part payment on a new one. In this manner if a little care and good judgment is exercised, it is an easy matter to acquire 50 or 60 rental batteries, at a mere nominal cost.

It is the custom amongst the important battery manufacturers to appoint an exclusive distributor in a limited territory. All battery sales of that particular brand must go through his hands. He is expected to operate an efficient battery service station and endeavour to open up sub-stations under his direction within the limits of his territory. If the distributor is successful in appointing say six sub-stations, he is in the happy

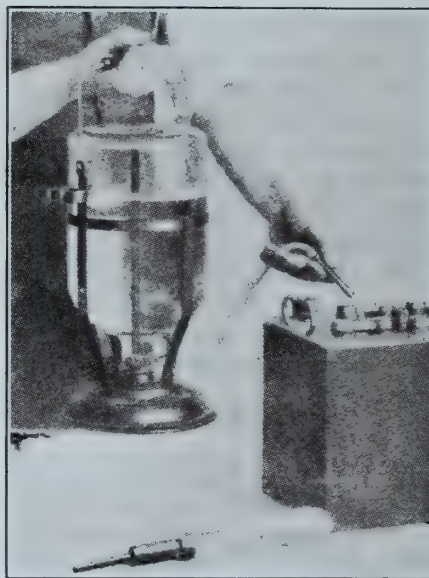
position of having six other firms "boosting" his line and effecting considerable sales in his territory, upon which the distributor makes his profit, without going to any trouble or expense to effect the sale.

#### Number of Batteries for Stock

A stock of regular batteries will run in the average size town something as follows:—

6 Volt 11 Pte Sizes .....	\$100.00
6 Volt 13 Pte. Sizes .....	50.00
12 Volt 7 Pte. Sizes .....	20.00
	<hr/>
	\$170.00
Stock of plates, jars, terminals, separators, etc. ....	75.00
	<hr/>
	\$245.00

There is still the battery room to be fixed up. In this room there has to be



Work in the battery room is facilitated by modern equipment.

several long benches, with the necessary electrical connections for charging a row of batteries.

The cost so involved is not heavy. There is also the wiring, fixing benches, painting with anti-sulphuric paint, etc., totalling about \$75.00.

A service truck is an essential item of equipment for a Battery Service Station, as by its aid batteries can be collected from the various garages, or even private homes of customers, and returned to them in a similar manner.

As all car agencies already possess a service truck, it does not incur an extra expense to employ it on battery service, therefore this capital expense is avoided. However the battery department should be charged up with its share of the cost of upkeep of the service truck.

#### Recapitulation of Capital Expenditure

Equipment .....	\$345.50
Rental Batteries .....	75.00
Wiring and Benches, etc. ....	75.00
Extras .....	25.00
	<hr/>
	\$570.50

For a trifle of \$600 a splendid small battery service station can be equipped providing all the necessary equipment to handle a flourishing battery business such as would be needed in the average small town of 20,000 population.

In nearly every garage there are one or two mechanics who attend to ignition and electrical troubles. It is therefore an easy matter to have such men trained in battery service work. Manufacturers are always pleased to allow your man access to the factory for a period of training, or else he will arrange for the man to be trained in a battery service station in the nearest large city. In such a manner the question of skilled labor is easily disposed of and need not cause any apprehension.

In considering the handling of a battery agency the writer would here offer a word of warning, be sure the battery you are handling is a reliable and proven product.

There are on this continent over three hundred storage battery manufacturing companies. Of these however there are perhaps less than a dozen whose product is of outstanding merit.

The manufacturing of storage batteries is a most involved and scientific business, and needs considerable capital, experience, and research. All of the successful companies possess these resources and are turning out batteries that are well regarded throughout the continent.

#### CLUTCH ADJUSTMENT ON MODEL 40 EARL CARS

TO ADJUST the clutch on the Earl model 40, first the pedal stop screws just behind the pedal shaft should be set up high enough that the clutch pedal will clear the under side of the floor boards by about  $\frac{1}{2}$  in. and then locked by tightening the lock nut on the stop screw. When adjusted at this position the pedal should have from  $\frac{1}{2}$  to  $\frac{3}{4}$  in. loose travel measured at the pedal pad, to take care of clutch wear. Once this adjustment has been made correctly it should not be changed at any time, but any further clutch adjustment must be made on the fly wheel. If the loose travel on the clutch pedal is more than  $\frac{3}{4}$  in. the two large hexagon screws at the back of the clutch plate should be loosened, and by depressing the clutch pedal both of these screws can be moved easily to the left which will let the clutch release bearing come closer to the clutch release yoke, thereby reducing the loose travel of the pedal. If the clutch pedal has no loose travel or not sufficient, the two screws should be moved to the right in slots until the clutch release bearing is pushed far enough to give the clutch pedal the desired loose travel after you tighten up the two screws in the clutch plate again. Never use the pedal stop screws for a clutch adjustment.





# Motor Trucks! Tractors! Engines!

*Yours to Sell with the McCormick-Deering Line*

There is nowhere to-day a more complete choice of power and haulage equipment than is offered in the McCormick-Deering Line. **Motor Trucks**—built in twelve sizes, ranging from the 2,000-lb. Speed Truck (illustrated above) to the 10,000-lb. freighter for heavy duty, with regular and special bodies for every purpose. **Tractors**—two popular models, and each the product of years of tractor-building experience. For the 3-bottom trade you have the Titan 10-20; and for the 4-bottom customers, the McCormick-Deering 15-30. Two sturdy tractors that have won the confidence of users everywhere. **Engines**—International Engines operate on kerosene, and are built in 1½, 3, 6 and 10-h.p. sizes.

A size for every customer—you need turn none away.

Realize the value and opportunity offered by the McCormick-Deering Line of power and haulage equipment! Strive every day to increase your sales, and to improve your service. You can help your customers at this season by urging them to drain the water from their motor trucks, tractors and engines. Better to drain them than to buy new parts. Pass the word along to your customers—and while you are doing it, include a few words about the power and haulage equipment you have to offer. Advertise—canvass—sell! There is business for the man who goes out after it.

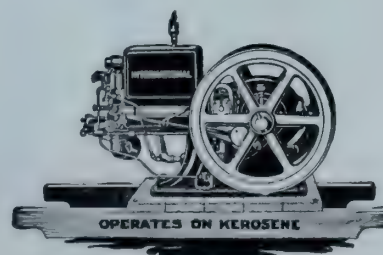
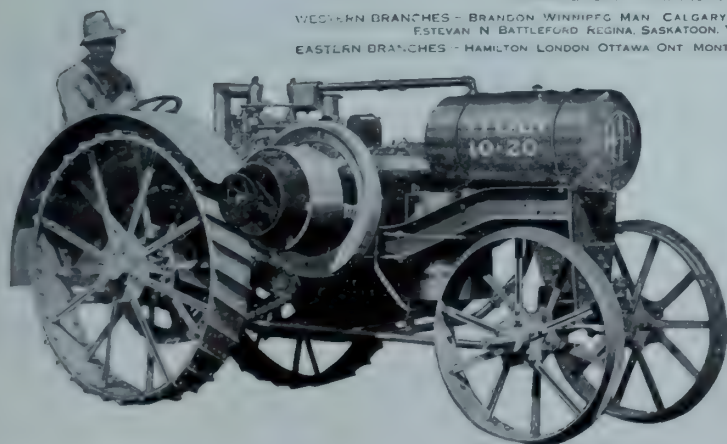
## INTERNATIONAL HARVESTER COMPANY

OF CANADA LTD

HAMILTON CANADA

WESTERN BRANCHES - BRANDON WINNIPEG MAN. CALGARY EDMONTON LETHBRIDGE ALTA.  
ESTEVAN N. BATTLEFORD REGINA, SASKATOON, YORKTON, SASK.

EASTERN BRANCHES - HAMILTON LONDON OTTAWA ONT. MONTREAL QUEBEC QUE. ST. JOHN N. B.





# Shop Notes for the Garage Man

## FIXTURE FOR BABBITTING CONNECTING RODS

THE SKETCH, Fig. 1, shows a view of a handy adjustable fixture for babbitting connecting rods. It consists of a plate A, made from cast iron and planed on the top side so as to be perfectly level and smooth. The stud B is made to fit the connecting rod at the wrist pin end. The plate is drilled and tapped to suit the threaded end of the stud. This stud has a collar at the bottom of the required thickness to bring the connecting rod up to its centre line.

The stud C is made to correspond with the diameter of the crank bearing and has two slots milled at each side about 6 in. wide. A piece of sheet metal is inserted to make a parting after the babbitt is poured and to allow for skim, to be used when fitting cap on connect-

ing rod after scraping to bearing on crank.

quired depth to correspond to the thickness of the flange on the bearing. The top washer is drilled to allow for pouring the babbitt.

The plan view is shown at Fig. 2.

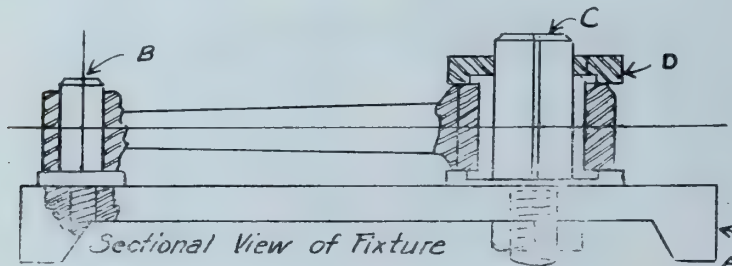


Fig. 1.

## MILLING ATTACHMENT FOR A LATHE

A PLAN view of a very useful milling attachment fitted to a lathe is shown at Fig. 3. It was designed for

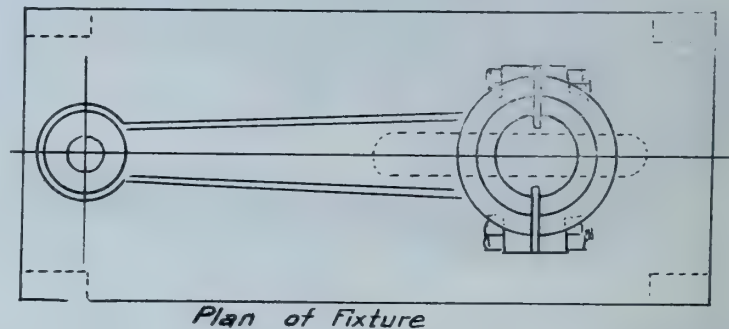


Fig. 2.

milling key ways in axles, brake shafts, crank shafts, spline shafts, etc. There are numerous key seats in connection with parts of a car that get worn and pulled out of shape which can be made just as good as new by having the old key seat filled in by oxy-welding and recutting to the standard width and depth.

The attachment shown, which can be made in any repair room, consists of a cast iron gear A which is bored and threaded to suit the spindle of the lathe, the diameter being of proportion to suit the centre distance to mesh with gear B which is keyed to a shaft carrying a mitre gear C. This mitre gear is run in mesh with gear D and com-

As some engines have connecting rods with a flange on each side of the babbitt, it is necessary to have two washers D, which are counterbored the re-

Note the slot E lengthwise on the plate. This is provided for moving pin C to suit the required length of different makes of connecting rods and equalizing the thickness of babbitt after being run to form the bearing.

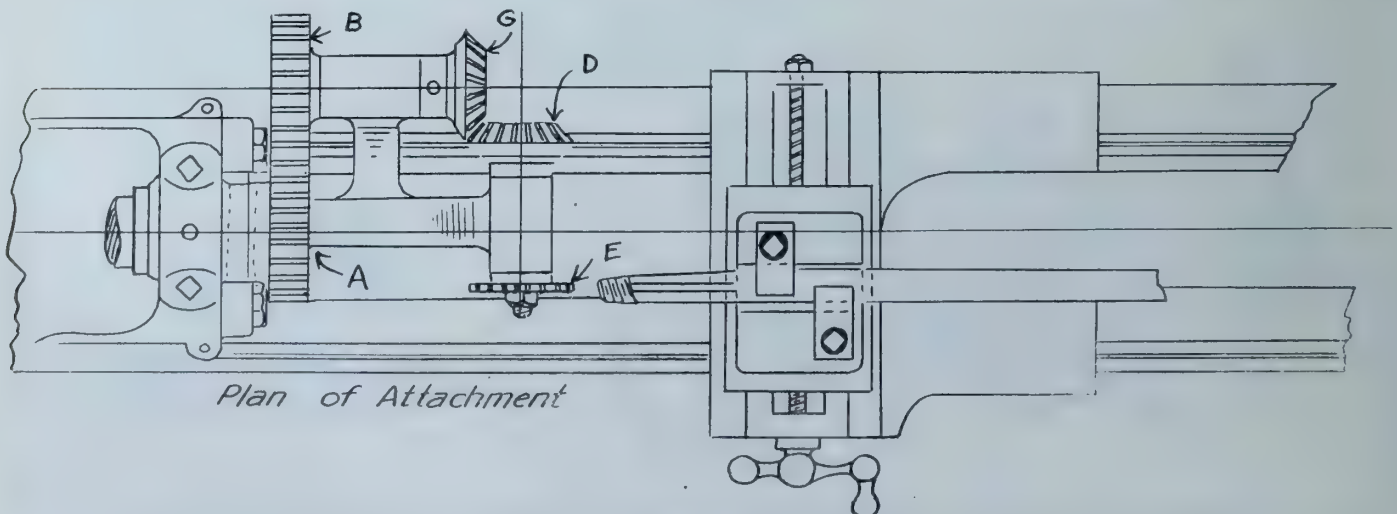


Fig. 3.



# Jardine Garage Equipment Means Better Service

and better service—real time-saving service—means increased profits to the garage or repair shop man.

Jardine Garage Equipment is designed for speed, convenience and efficiency. It is guaranteed by a concern of over fifty years' standing—a guarantee that means real "after-sale" satisfaction.

**JARDINE TIRE CHANGER**—This is the only machine on the market that will handle wire wheels. No particular skill required. It will save a lot of time—in fact, the time it saves will alone pay for its cost in a very short time. The price is \$55.00.

**FORD ENGINE STAND (Stationary)**  
Tire changer—For wire wheels and all styles of detachable rims for passenger cars.

**JARDINE STATIONARY ENGINE STAND**—This is specially designed to accommodate either a Chevrolet or Ford Engine. Holds the engine solidly yet without danger of cracking the cylinders. Has a strong cast iron column with a positive lock in any desired position. Price, No. 1, Stationary, \$26.50. No. 10 Portable, \$34.00.

We also manufacture Presses, Cranes, Taps and Dies, Grinders, Blowers, Forges and Drilling Machines.

Write for Catalog No. G-22

Made in Canada

**A. B. JARDINE & COMPANY, LIMITED**  
Hespeler - - - Ontario



**Tire Changer**  
For all styles of detachable rims for passenger cars.

## Just Pull the Lever



### The DOMINION UTILITY BODY

is a simple, fool-proof, time-saving body; can be used with any make of truck. Combining a Dump, Express and Stake Body in one. There's no complicated hoist—just pull a lever and it dumps and returns to position automatically. Note the steep dumping angle—the load simply has to go.

**Dominion Truck Equipment Co., Ltd.**  
Established 1914  
Kitchener, Ontario

## THE BEST CYLINDER GRINDING

it is possible to turn out  
**IS THE KIND WE DO!**

Send your CYLINDER GRINDING and SCORE REPAIRING to us and BE SURE OF SATISFACTION.



### OUR PISTON SERVICE

represents the first real effort along this line.

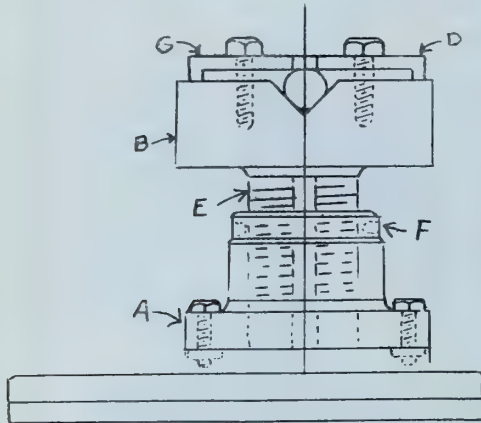
Write for Our  
Piston Directory

**Thexton Machine Works Ltd.**  
736 Dundas St. E. TORONTO Phone Main 4233W



pletes the right angle drive for cutter spindle E.

The special shaft holder is connected to the cross slide on the lathe and is shown more clearly in sketch at Fig. 3. The compound rest of the lathe is removed and the base of holder is bolted to the swivel section of the cross slide.



Side View of Holder.

Fig. 4.

this, in turn, giving the movement for centering purposes. The holder proper B is of the V shape type to conform to various shaft diameters, the taper portion of axes being taken care of by packing up the front end in order to get it level, afterwards being held in position by two clamps C and D.

The holder is turned and threaded on the shank E, and the base A bored a nice sliding fit, but not threaded. The raising and lowering adjustment is done by an adjusting nut F which is circular and has four holes drilled to suit an adjusting bar of  $\frac{3}{8}$  in. dia. The shank E is also milled for a  $\frac{3}{8}$  in. keyway and the base A has one of same proportion.

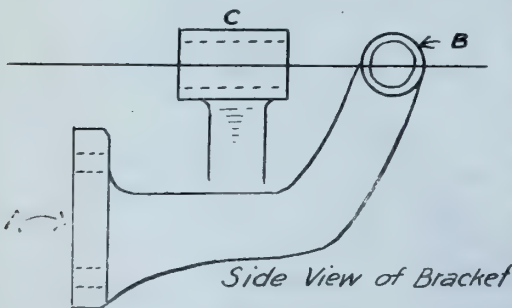


Fig. 5.

The key proper is inserted in base A. This key keeps the holder from turning when operating the adjusting nut.

After all adjustments are made and ready for milling operations, the set screw shown in sketch is tightened, locking the holder to prevent any vibration which might cause the cutter to dig in the work or chatter. The feed lengthwise is obtained by allowing the lathe carriage to traverse in the usual way.

The gear bracket is shown at Fig. 5 and needs little explanation beyond the fact that it must be designed to suit

the lathe used and the gears on hand. The part A is fastened to the lathe headstock by four  $\frac{5}{8}$  in. cap screws, and the shaft poles B and C can either be bored out or babbitted to suit the diameter of the shaft used. A shaft 15/16 in. in dia. is a good size to make a substantial job. If the attachment is made too light there will be too much spring.

Such an attachment will be found very useful in the repair shop and has the advantage of not being expensive to make.

#### STRAIGHTENING SPRING HORN ON AUTOMOBILE FRAME

A SIMPLE and practical method of straightening the front spring horn of automobile frames when bent from the original shape is shown in the sketch at Fig. 6. The radiator should be removed, also the front axle and springs and the frame supported by some suitable blocking arrangement. A stand of some sort should next be built up to support the plate A within an inch of the frame at the part to be straightened. A small furnace filled with charcoal is built around the frame.

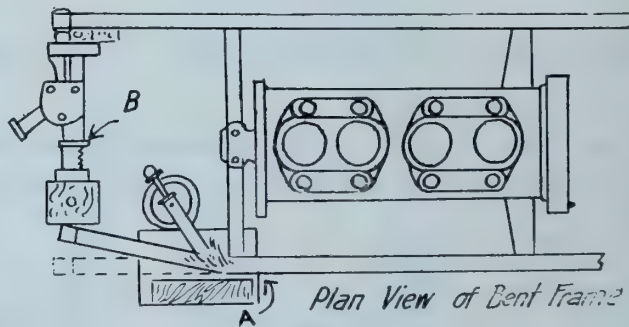


Fig. 6.

A large gasoline torch is used to burn the charcoal. After the required heat is obtained, that is when the frame has been brought to a cherry red, the torch is set aside and pressure applied between the frame horns by means of a jack. Blocks can be used to make up the distance between the jack and the frame.

While undertaking this work it is advisable to have an assistant to hammer the frame to its normal shape. In order to avoid marking the frame with the hammer, a blacksmith's flattener should be used. Care should be taken to see that the frame is heated sufficiently so that the bend is taken out without excessive pressure from the jack.

#### FORD PRICES LOWERED

Announcement of reduction in prices has been made by the Ford Motor Co. of Canada. The reductions range from \$30 to \$60.

The chassis now is \$395; runabout, \$455; phaeton, \$495; truck chassis, \$545; coupe, \$780; and sedan, \$870. Starting and electric lighting are standard on closed models. On all others \$85 extra.

## Value of Specialized Trade Papers

(Continued from page 13)

to their business on Monday morning with some clippings from your paper in their pockets. They will say to their associates: "This is the situation, I can show it to you in this clipping." For that reason, gentlemen, I say that yours is the greater obligation, because you are leaders, because you are helping to build up the business fabric of the country.

We appreciate the honor the C. N. E. has conferred on the Press in singling out a day in their honor. In a larger sense, however, every day is "Press Day" for some of the publishers in our association. Our publications are of such a varied nature and cover such diversified fields that in nearly every case there are one or more publications devoted to the industry that gives the day its name.

Now, I believe the directors are interested not merely in bringing the numbers but in bringing the men and wo-

men with a stake in the country—the responsible people, the people of large buying power. To put it in newspaper language, you are interested in class in circulation rather than in the mass circulation.

In every one of the lines mentioned above, our publications reach a large percentage of the best men and women engaged in the business, and reach them with publications that they have come to regard as their business associates.

I can assure you the publications in our association will be very glad to cooperate with you not only in organizing exhibitors and inducing them to guarantee the cost of the building, but in making the buildings a success after they are erected by bringing to the Exhibition the class of people these exhibitors want to reach. For, after all, the real success of an Exhibition does not consist in large buildings or elaborate exhibits but in the class of people who attend.

The Imperial Oil Co. has decided to build a new refinery at Calgary, Alta., to cost about \$2,500,000. The site is about 107 acres, and the plant will have a daily capacity of 3,000 barrels.



# WILLYS-KNIGHT *now* \$1800

The reduction of the Willys-Knight Touring Car to Eighteen Hundred Dollars puts this truly wonderful car within the reach of many who have long desired to possess a car with a Knight Sleeve-Valve Motor.

Never before have there been so many sales of Willys-Knight cars as in 1922—the new prices assure dealers of a continued and increasing demand through 1923. If there is no Willys-Knight dealer in your territory it might be of mutual interest for you to write us.

*Sleeve  
Valve  
Motor  
Improves  
With  
Use.*

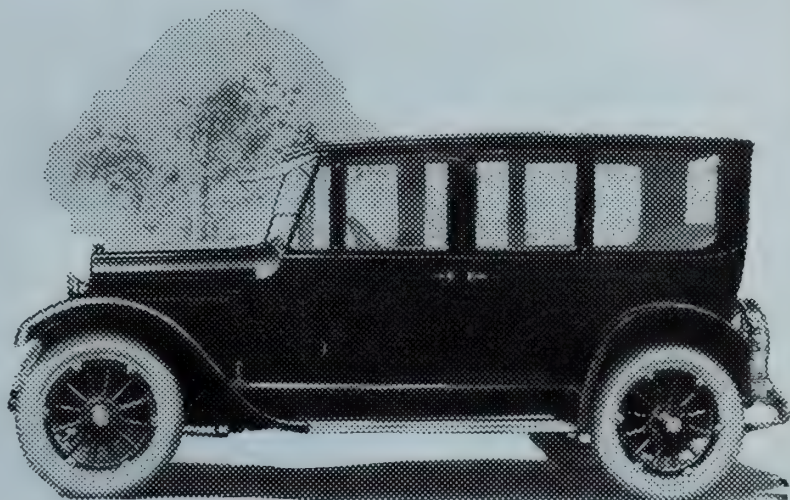
## *New Prices*

Effective Sept. 20, 1922

Touring and Roadster .....	\$1800
Coupe .....	2650
Sedan .....	2800
7-Passenger Touring .....	2100
7-Passenger Sedan .....	3200

F.O.B. Toronto  
Government Taxes Extra

**Willys-Overland Limited**  
Toronto, Canada



## What is Gray-Dort Planning for the Dealer?

Two startling announcements are just about ready for release from the Gray-Dort factory. They will affect the business of every automobile dealer in Canada. They will put more money in the pockets of some dealers. If you are interested write for advance information.

**GRAY-DORT MOTORS LIMITED**  
CHATHAM, ONTARIO



# New Automotive Equipment

## THE A-JUST FOR FORDS

This device is designed to adjust automatically the gas supply of Fords when starting up. It admits more gas when the motor is cool but automatically lessens it when the motor has warmed up. It does this by turning the needle valve one-quarter to the left to admit a richer mixture and when the motor is warm by reversing this action. A coil of thermostatic metal is so placed that when the motor warms up it expands, turning with it a rod, one end of which is attached to the control lever of the needle valve, shutting down the amount of gas supplying the carburetor. Contraction reverses the process when the motor is cold. Made by the Grundy Manufacturing Corp.



K-M Automatic  
Windshield Cleaner

## K-M AUTOMATIC

### WINDSHIELD CLEANER

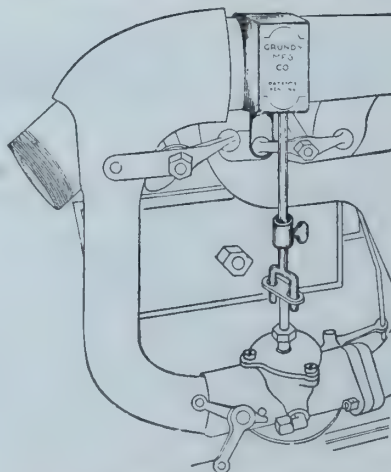
This windshield cleaner made by the K-M Manufacturing Co., automatically cleans both sides of the glass. It is connected to the intake manifold or the vacuum system and is provided with a valve control mechanism. The inside arm of the cleaner has a felt wiper and the outside arm is supplied with a rubber wiper. Provision is made for adjustment of pressure of the parallel wipers which is evenly distributed throughout their length by being centrally pivoted to the arms. The valve control mechanism is located between the two cylinders of the motor mechanism and controllable by a tooth sector attached to the shaft on which the wiping arms of the cleaner are attached. The tooth sector engages a rack which is pinned lengthwise to the shaft on each end of which is a piston.



Security Glare Eliminator

## SECURITY GLARE ELIMINATOR

This is a colored glass shield attached to the top of the windshield through which the glare of the passing cars is neutralized. It is manufactured for either open or closed models and for any make of car, the one for open cars clamps on the top of the windshield, while that for closed cars screws on to the frame just over the windshield. They are furnished in various shades of glass. There are two joints on the lever between the bracket and the glass by which adjustments can be made to any convenient height. Made by the Security Mfg. Co.



A-Just For Fords



Pelton Piston Rings

## VAN GASOLINE FILTER

This device has been designed to stop trouble caused by dirt or water getting into the vacuum tank and carburetor. It also furnishes a convenient supply of gasoline for priming the engine, cleaning the spark plugs and so on. Gasoline is drawn first into the filter chamber, filling this completely. It passes through several strainers located near the top and then into the tank. This filling operation continues about eight to ten seconds usually. Between fillings the gas in the chamber stands about two-thirds the height of the glass and is at rest, allowing the water, sand and all foreign matter to settle. This rest period is usually one to two seconds in duration when the engine is idling. Dirt and water are drained off by removing the knurled cap at the bottom of the filter. Strainers can be cleaned without removing by squirting gasoline on them. Made by the Anderson Motor Corp.

## HELMET PARKING LAMP

### AND TRAFFIC SIGNAL

This parking lamp makes the car visible from front, rear and side, and illuminates the hand when giving stop and turn signals. It is made of aluminum and the lenses are secured by spinning metal over the edge of the glasses.

The traffic signal flashes "turn left," "turn right" and "stop." The arrows for right and left turn are controlled by two small steel buttons which may be mounted to suit the driver's convenience on steering wheel, steering column, floor, etc. The "stop" contact switch is mounted on the brake pedal so that the signal may be released with the brake on. A pilot light mounted on the dash or other conspicuous place tells when the signal is working. It is made of pressed steel, black enameled and nickel trimmed. Made by the Williamson Manufacturing Co.

## PELTON PISTON RINGS

This is a two-piece piston ring. The lowered part is beveled and fits into a similar bevel on the inside of the upper part. The outside of the upper part is cylindrical. The lower portion is fitted with spring expanders. These rings fit in grooves .032 in. overwidth and cylinders .040 in. oversize. They are made in diameters from 2 to 6 15/16 in., and in 3/16, 1/4 and 5/16 in. widths. Made by the Pelton Piston Ring Co.



## GASOLINE MOTORS \$50.00 and up

### 4 CYLINDER — 4 CYCLE

20 horsepower and up, these motors are taken from high-priced automobiles, and can be used for any purpose where power is required. Hundreds of these motors in use all over Canada are giving satisfaction in motor boats, tractors, cutting boxes, sawing wood, running machinery, etc. We also carry the largest stock in Canada of slightly used parts for motor cars of all kinds.

Satisfaction or refund in full, our motto.

**Shaw's Auto Salvage Part Supply**  
927-31 Dufferin Street  
TORONTO

## WedgeRite Piston Rings

The standard by which all rings expanding in the groove are judged. WedgeRite piston rings today are better than ever and in addition to this the WEDGERITE PISTON RING is first to reach a SCIENTIFICALLY correct degree of FULL FLEXIBILITY insuring a uniform wall and groove pressure.

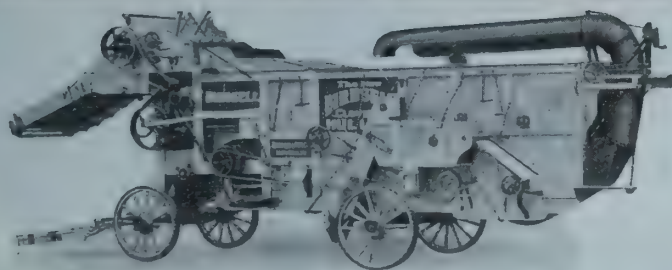
*Manufactured by*

**The Piston Ring Co., Limited**  
Montreal - Canada

## The Birdsell Clover Huller

Since the Year 1855

**The World's Best Seed Saver**



### A Profitable Investment for You

Every owner of a "Birdsell" is satisfied because he can please his patrons and make some money in operating the machine.

Every Dealer who sells Birdsell goods makes friends thereby. It is a safe line to sell.

**Birdsell-Gehl Silo Fillers  
Ann Arbor Hay Presses**

We carry a complete line, also repair parts in stock here in Toronto, and our Travelers cover the territory and assist Dealers where necessary.

**When in need of anything in our line, write or telephone us. We are here to help you.**

**BIRDSELL MANUFACTURING CO., Toronto, Canada**  
Foot of George Street

Each Tire Hangs Alone



**Equip  
Your  
Store  
With**

## MANKEY TIRE HANGERS

Dress up your store and save labor. The cost is little.

**ASK YOUR JOBBER**

Deliveries f.o.b. Montreal, Toronto, Winnipeg, Vancouver.

MOTOR NECESSITIES COMPANY,  
Somerset Bldg., Winnipeg.

Send through my jobber one No. 2 Rack for 15 days' examination. I will remit \$37.35 or return the rack at that time without further obligation.

Name .....

Address .....



## Canadas Most Modern Tire Plant



# Firestone



# A Monument to Canadian Industrial Accomplishment

The new Firestone plant at Hamilton, Ontario, is now in operation.

The factory itself with its last-minute equipment and efficient devices is a monument to what Canada can accomplish in the industrial field. The imposing building with its 155,000 square feet of floor space is constructed of Canadian materials. The machinery comes from Canadian makers. Workmen and executives themselves are Canadians.

Firestone Tires are truly a national product. Canadian manufacturers are supplying fabrics and pigments. Rubber comes to Canada direct from Singapore. Firestone Tires as manufactured in Canada to-day are complete confirmation of our country's industrial independence. Increased manufacturing facilities also mean that Firestone quality is now available at prices no higher than those asked for ordinary tires.

*Ask your Firestone distributor  
for the latest merchandising  
plan and price schedule for  
these tires or write us direct.*

FIRESTONE TIRE & RUBBER COMPANY of CANADA, LIMITED

HAMILTON

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ONTARIO

# CORD TIRES



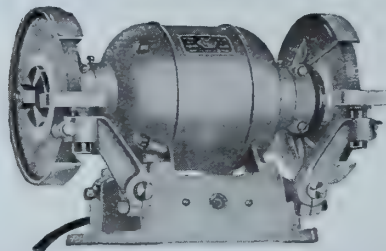
# Shop Equipment

## ELECTRIC AIR COMPRESSOR

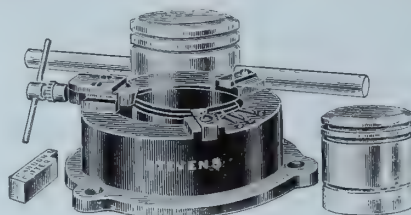
The accompanying cut shows a sectional view of a motor driven air compressor. It is built in two sizes, having capacities of six and twelve cu. ft. per min. The former is capable of working up a pressure of 200 lbs. and the latter 75 lbs. pressure. The 2 h.p. motor is designed especially for this machine. The unit is self contained, motor gear-train and compressor being mounted in the one housing. Top cover is in two sections, individually removable. This permits of easy access to the interior mechanism. The removable cylinder head carries intake and outlet valves, both of which are arranged for pipe connections, so that the intake pipe may be used to bring pure, clean air to the compressor; this also makes it possible to use these machines for vacuum work by merely reversing the pipe connections. The valves are of automobile poppet type and ground individually. The piston is of aluminum alloy. Single reduction gearing is employed, the shafts running in bronze bearings. The housing forms one big air jacket and a centrifugal fan on the armature shaft circulates air all through the housing and forces it out through opening under projecting flange of valve head, thus cooling commutator, windings, bearings, cylinder and valve head. The compressed air passes from the cylinder into a cooling and condensing chamber provided with fins to assure rapid dissipation of compression heat. There is no water to freeze up or evaporate. Made by the Black and Decker Mfg. Co.

## PISTON OIL-GROOVING TOOL

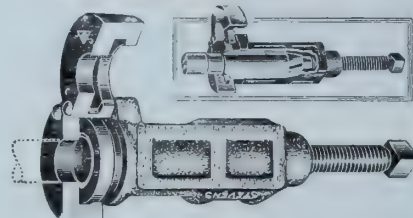
To counteract oil-pumping pistons, it has become the widespread practice to put an oil-groove on the piston and also to drill oil-return holes in the groove. The tool here shown has been designed to cut and chamfer the oil-groove in pistons and likewise to serve as a jig for drilling the oil-return holes. This tool chamfers the lower edge of any groove in the piston at exactly the correct angle. The cutter is made of high grade tool steel and has proper clearance to obtain a clean, smooth cut. The feed screw has a stop to prevent an accidentally deep cut. When the tool is fastened to the bench, the piston is inserted, disassembled, but when it is clamped vertically in a vise, the piston may be inserted with the connecting rod turned by passing the bar through the connection rod bearings. Burnt carbon deposit is removed from the bottom of the ring groove by using a flat cutter



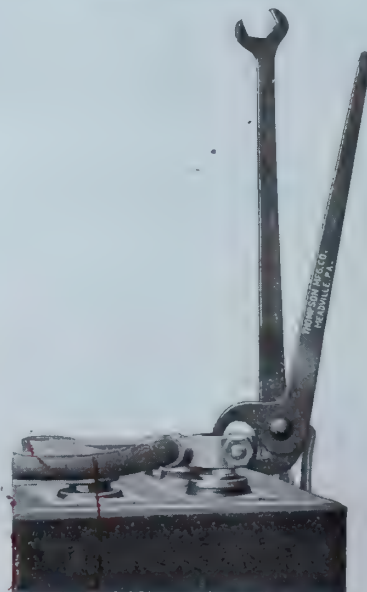
Black & Decker 8-inch Electric Grinder



Piston Oil-Grooving Tool



Puller and Driver



Pelican Pliers

in place of chamfering cutter. One of the steel jaws is designed as a jig for drilling the holes. Graduations on the face of the tool allow of uniform spacing of holes. It is claimed that the method will cure the most persistent case of oil pumping. These tools are made by Stevens and Co.

## PULLER AND DRIVER

It is very often a difficult task to remove an automatic drive shaft sleeve with ordinary tools. The tool here shown is claimed to make this job an easy one. It is equipped with steel jaws that completely surround the sleeve, so that any required pressure can be applied through the large steel screw without injury to either sleeve or shaft. The inside is machined to a close fit on the sleeve to prevent the tool from springing out of line or jumping off under pressure. The square bosses on the sides are for securing the tool in a vise.

The driver has a novel feature, as it is provided with a "sight," consisting of a special notch and pin, which insures the proper alignment of the keyway slots as the sleeve is driven into place. The sleeve is driven with safety. These tools are the product of Stevens and Co.

## BLACK & DECKER 8-INCH ELECTRIC GRINDER

Black and Decker Mfg. Co. have placed on the market a new 8-inch electric grinder designed for heavy grinding in the repair shop, and also for brushing, buffing and polishing. It is provided with or without a pedestal and for both direct and alternating current. The motor is one-half horse power, 3,600 r.p.m. It is totally enclosed to keep out abrasive dust. The bearings are also dust-proof. The grinder is equipped with two grinding wheels, wheel guards, tool rests and switch. The pedestal is made of gray iron and the whole is finished in gray enamel.

## PELICAN PLIERS

These pliers are designed for battery work and combine many tools in one. A wrench on the end of the handle will loosen the clamping nut; a screw-driver on the other handle will spread the terminal clamp, besides the plier jaws for removing corroded vertical, taper and straight terminal clamps. The pelican-shaped jaws will grip hexagon nuts and square and round headed terminal bolts. The opening in the wrench jaws is made for a five-sixteenths standard and hexagon nut. Made by the Thompson Mfg. Co.



## Does Trade Paper Advertising Pay?

Regardless of the superior quality of a product, or how exactly it meets the needs of many people—the manufacturer will soon go out of business, unless someone offers it for sale, and people buy it.

It has been said that anyone can manufacture—but that it takes a wise man to sell the product.

Nothing sells itself.

Everything must be sold.

That's why the dealer's goodwill is so important.

But every product must be sold to the dealer, before he can conscientiously sell it to his customers.

There are only three ways of selling the dealer.

First: You can send a salesman to tell him about your products, convince him of their superior merit, win his goodwill. You can satisfy him so thoroughly, that he can sell your products and make money by doing so, that he will give your salesman an initial order.

Second: You can mail a letter, catalog or circular, which tells the dealer what he wants to know about your products. The mail man becomes your salesman.

Third: You can insert an advertisement in the Trade Papers which the dealer reads, to tell him who you are, what you make, how much he will make if he sells your products, and why he should sell them.

A salesman is supposed to get orders.

A sales-letter is expected to bring back a reply.

A circular usually has a "Return Post Card."

Some manufacturers claim that they are unable to trace results directly to their Trade Paper advertising. They say that they receive but a small number of replies from their advertisements in Trade Papers, and are unable to prove conclusively whether Trade Paper advertising pays them or not.

It is obviously unfair, however, for any manufacturer to judge a Trade Paper by the number of inquiries he receives from his advertising—since one inquiry from a Trade Paper may result in more actual orders during the year than 10,000 inquiries from a publication of general circulation will produce.

A publication is merely a messenger, whether it is a newspaper—a Trade Paper—a farm journal—or a national magazine. It has nothing to sell but its services as a messenger.

A page of white space has no tangible value. It is not worth a cent, even though it may cost the advertiser \$10,000 for a single issue. It is only a messenger, and if the message which is printed on the page of white paper is an uninteresting one—why blame the messenger? The message is all important.

Reprinted by permission of  
FRANK M. COMRIE COMPANY

## The Penetang Carriage Co., Ltd.

Factory—Penetang, Ontario

Sales Office—742 Yonge St., Toronto

Manufacturers of

## High Grade Commercial Bodies

**ALLIGATOR**  
TRADE MARK REG. U.S. PAT. OFFICE

**STEEL BELT LACING**

**Strength Comes First**  
Try Alligator, the Strongest Belt Lacing on Earth. "Every Tooth a Vise." Mechanically perfect. Quick, easy and economical. A size for every belt thickness. Write for samples and interesting text book. Sold through Jobber-Dealer trade channels the world over.

**Flexible Steel Lacing Company**  
4663 Lexington Street, Chicago, Ill., U. S. A. In England at 135 Finsbury Pavement, London, E.C., 2

Never Lets Go

## A Great Market for Automobiles

THE FINANCIAL POST gives the manufacturer of automobiles, motor trucks, tires and accessories a most distinctive field. Advertising in THE POST will place his message before those who buy cars and equipment not only for themselves (and they are probably 95 per cent. car owners) but who control purchasing policies of large corporations and institutions buying motor cars and motor trucks in fleets for factory use, for branch managers and for salesmen and buying tires and other accessories for these same cars and trucks.

- The Post is read by the directors and executive officers of big business concerns.
- It is read by bankers and brokers.
- It is read by investors—individuals of means.
- It is read by high salaried men.

Its circulation covers a great automotive market—a market built on purchasing power.

Write The Financial Post, 143 University Ave., Toronto, for A. B. C. circulation Statement and rate Cards.



Advertise Automobiles, Motor Trucks, Tires and Accessories in The Financial Post and reach this really worth-while market.



## TORONTO BRANCH J. MILLEN & SON MOVED

JOHN MILLEN and Sons, automotive equipment jobbers, have moved their Toronto quarters from Adelaide Street E., to the Rogers Building at 63-71 Wellington Street W. A ten-years' lease has been taken of the ground floor and basement. The building has a frontage of 80 feet and is 207 feet deep. As John Millen and Sons do a strictly wholesale business it was deemed advisable to seek larger quarters in the downtown wholesale section.

## ELECTED PRESIDENT

W. T. SAMPSON was elected president of the Automotive Industries of Canada in succession to R. S. McLaughlin, president of General Motors of Canada, Ltd., etc., at the annual convention in Toronto Tuesday—the largest in the history of the A. I. C.

T. A. Russell, president of Willys-Overland, Ltd., etc., was elected vice-president, and the board of directors was re-elected, W. R. Campbell, vice-president and general manager of the Ford Motor Car Co. of Canada, Ltd., filling the chair left vacant by the death of the late Gordon McGregor.

Sampson is vice-president and general manager of the Gananoque Spring and Axle Co., Ltd.

## WILLYS-OVERLAND CO.'S POSITION GREATLY IMPROVED

TOLEDO.—The position of Willys-Overland has greatly improved in the last three months. May was the first month in a year and a half to return a profit of a definite nature of more than \$600,000. June profits are believed to have been between \$900,000 and \$1,000,000. Inventories have been reduced to \$19,000,000 as compared to \$35,000,000 at the end of 1920. The company has approximately \$10,000,000 in cash. Production for the second quarter was approximately 33,000 compared with 17,000 for the first quarter. The first half year thus exceeded by 2,000 the total output for 1921.

## DURANT GUARANTEES PRICES

VISIONS of a motor car price war faded when W. C. Durant announced recently that Durant prices had been guaranteed until August 1, 1923. The guarantee is made to distributors and dealers.

"Our present prices," Mr. Durant says, "were established when business was at a standstill, with material costs as low or lower than those now prevailing. We carried no after-war burdens and had no high-priced inventories to liquidate. Our prices were fixed accordingly."

If you do \$100 worth of work and if your profit is \$10 you haven't made any money at all if \$10 is never paid by some customer. And each day the money is over-due it shrinks.

## FORD OF CANADA EARNINGS

THE Ford Motor Company of Canada, had net earnings of \$5,006,521 in the fiscal year ended July 31, equal to 71½ per cent. on the \$7,000,000 stock of the company outstanding. The annual statement of operations has been sent to stockholders.

The statement shows \$6,147,715 cash on hand July 31, 1922. Investments totalled \$3,971,184; accounts receivable, \$1,017,192; plant inventory, \$4,560,908; goods inventory, \$9,806,276.

Surplus totalled \$12,537,972, reserves for depreciation and uninsured risks, \$4,040,922, and current liabilities, \$2,082,551. During the year dividends totalled \$2,100,000 were paid.

The company produced 45,000 cars and 1,192 tractors in the year. This compares with 46,832 cars and 3,062 tractors in the preceding year. Total value of sales was \$29,273,254, a reduction of \$8,563,219 from the preceding year. The reduction was due mostly the report says, to lower selling prices.

## FACTORY SUPERINTENDENT OF BEAVER CORP.

H. R. Williams, general manager of the Beaver Truck Corp., Ltd., announces the addition to the Beaver Truck Corporation, Limited, of R. Bradburn, who will assume the duties of factory superintendent. Mr. Bradburn is widely known throughout Canada, having been plant manager for the Peter Lyall Construction Co. of Montreal, mechanical superintendent for the Canadian Car and Foundries Company, Welland, and more recently manager of the Canadian Nathan Company of Hamilton, which position he gave up to become identified with the new Beaver organization. Some additional names will shortly be announced both for the directorate and executive positions.

## FORD SETS NEW PRODUCTION MARK

ACCORDING to the Wall Street Journal Henry Ford has set a new production mark for his plants to aim at next year which will put hundreds of thousands more cars on the market in 1923 than in any previous year.

Orders have been given to speed up production and install additional machinery, with a view to making 6,000 cars a day by April 1, 1923.

## NEW TORONTO PLANT FOR FORD

NEGOTIATIONS have been concluded by the Ford Motor Co. of Canada for the purchase of a factory site on Danforth Avenue, Toronto, from the Grand Trunk Railway, at a price around \$175,000. Work will commence immediately on the new building, which will be 650 x 350, one storey, and constructed of brick and steel. The plant will be used for assembling cars. The new plant will do all its own paint work.

## A. E. A. LAUNCHES CHRISTMAS SALES CAMPAIGN

A CAMPAIGN for intensive Christmas merchandising of automotive equipment and shop service has been decided upon by the Automotive Equipment Association. A series of bulletins are being prepared to show dealers and garage proprietors how to set about selling equipment for Christmas gifts.

Many suggestions and ideas for the planning and execution of the Christmas selling campaign are given in Number 3 of the Sales Executive, publication of which was recently commenced by Sherman.

One notable suggestion is that shop service can be merchandised for Christmas gifts as well as articles of equipment. "A paint job, a carbon cleaning job or any job for which a price can be flat-rated beforehand can be sold as a Christmas gift," it is said. "The service gift could be a very neatly done authorization on the dealer's stationery stating that Santa Claus had ordered the dealer to do the work required and that it would be done at the convenience of the receiver of the gift. This would make the money spent for gifts useful, which is what a lot of it is not. Many a man would rather have a set of spark plugs than a handful of wild neckties."

Another suggestion is that many common replacement articles can be fitted into Christmas merchandising. For instance, a set of piston rings, brake lining, a timer, or other articles would be very acceptable to the man whose car is in need of such equipment.

A warning against stocking up with Christmas cartons is given. This is to guard against the possibility of having a lot of unsalable packages left on hand after the holiday season. It is stated that the best plan for Christmas goods seems to be to take standard merchandise and provide materials or a plan whereby the dealer can wrap the article in holiday paper and tie it with ribbon or colored cord.

Emphasis is placed on the importance of Christmas decorations in the sales rooms. Dealers are advised at least to decorate their places with a tree.

## OVERLAND PRICES CUT

THE Willys-Overland Ltd., announced recently a reduction in Overland and Willys-Knight cars varying from twenty-five to two hundred dollars. The new prices, which are F.O.B. Toronto, are as follows:

Overland	
Touring and Roadster .....	\$ 785
Coupe .....	1,095
Sedan .....	1,295
Chassis .....	645
Special Touring .....	950
Willys-Knight	
Touring and Roadster .....	\$1,800
Coupe .....	2,650
Sedan .....	2,800
Chassis .....	1,650
7-Passenger Touring .....	2,100
7-Passenger Sedan .....	3,200



# News of the Trade

## ALBERTA

EDMONTON.—R. Duguid, battery repairer, has moved to new quarters.

CALGARY.—Gil. Murray, salesman of the Maclyn Motors staff leads all salesmen in Alberta for number of Ford cars sold.

## BRITISH COLUMBIA

VANCOUVER.—The Pattison Motors are building a new garage.

HAMMOND.—G. J. White, formerly of Vancouver, is operating a garage here. He carries a full line of accessories, gas, oil and tires.

## MANITOBA

WINNIPEG.—G. A. Malcolmson, for twelve years manager of the Winnipeg branch of the Ford Motor Co., has joined the staff of the Dominion Motor Co., distributors of Durant Cars.

WINNIPEG.—A somewhat novel method of advertising used cars was used recently by Capital Motors. The ad. read as follows: "Two real bargains for amateur mechanics. These two cars are offered for sale just as they came out of a collision—look them over, size them up and make us an offer—they are too good for the junk pile—rebuild them yourself and have a lot of fun."

## Ontario

ORANGEVILLE.—The garage business formerly conducted by Holmes and Crowe has been purchased by W. Orr.

TORONTO.—The Pure Gasoline Co. of Toronto has taken over the Canadian Service Stations, and the Supreme Oil Co.

WINDSOR.—A new garage has been built for the Easton-Edwards Motor Sales Company, agents for Chevrolet cars.

OTTAWA.—The Ottawa Car Mfg. Co., who have been handling Hudson, Essex, and Marmon cars, have added the Overland to their line.

KITCHENER.—The Department of Railways, Ottawa, has decided to experiment with a gasoline car on the G. T. R. line between Kitchener and Galt.

OSHAWA.—A Woon, assistant paymaster of the General Motors, was the recipient of many gifts from the factory and staff on the occasion of his marriage.

ALDRERSHOT.—E. V. Breckon has opened a garage on the Hamilton Highway. He has the agency for Ruggles trucks and handles repairs, accessories, etc.

OTTAWA. — "Skene" Ronan, the famous hockey player and for the last four years associated with the Ottawa Motor Sales, has secured the Willys-

Knight contract. His service will be handled by Mentzel Bros., where he has his showrooms.

BRANTFORD.—H. Strobbridge and Sons have taken over the agency of McLaughlin cars from J. H. Minshall.

LONDON.—H. R. Ford has joined the sales staff of the McLaughlin Motor Car Co., London branch. H. C. Lecky is also a new addition to the McLaughlin sales staff.

STOUFFVILLE.—The Ringwood Garage, handling all kinds of automobile repairs, battery repairs and accessories, has installed a new visible gasoline measuring pump.

DUMBARTON.—J. McGlaskan has taken over the automobile business formerly conducted by his brother. He will build an extension to his garage in the spring and install a machine shop.

## QUEBEC

MONTREAL.—The Legare Automobile and Supply Co. have made arrangements with Oakland Motors of Canada, Oshawa, for the exclusive franchise for Montreal and vicinity.

## SASKATCHEWAN

SASKATOON.—An advanced class in motor mechanics is contemplated by the University of Saskatchewan.

## Turnover—What It Is, What It Does

(Continued from page 26)

small Indiana city for a less pretentious shop diagonally across the street. Its quick returns allow the smaller store to make money on margins so narrow that it repeatedly cuts under the prices set by the big rival's slow turnovers."

5. Rapid movement and replacement of stocks eliminate shelf-worn and out-of-date goods. Clean and up-to-date lines tend to make a favorable impression upon prospective customers. The proprietor of the business might also be expected to take a keener interest in offering and advertising a clean stock of recently-produced goods.

6. Manufacturers and merchants with relatively high turnovers as compared with their competitors derive the benefit of better relations with creditors. They are also in a better position to take advantage of all discounts and to make their purchases more deliberately and independently than they otherwise would.

Some further points dealt with in this bulletin with regard to methods of calculating turnover and increasing it will be dealt with in the next issue.

## ARRANGEMENTS MADE FOR AUTOMOTIVE EQUIPMENT SHOW

THE ANNUAL convention of the Automotive Equipment Association will be held at the Chicago Coliseum from November 13 to 18. In addition to the election of officers, the general routine of the business will be taken up and matters of interest to the jobbing and manufacturing members regarding the industry will be discussed.

In connection with the convention the annual exhibit of automotive equipment will be held. The show will be a closed affair in which the manufacturing members of the organization only will be allowed to display their materials. The decision to make this year's show a closed affair was arrived at last March by the board of directors. A definite announcement to this effect is made in a letter to the members authorized by the board of directors, to set at rest rumors that the closed show authorization would be resented.

### New Members Admitted

Charles P. Hughes, secretary of committees of the A. E. A., tendered his resignation which was accepted by the board.

A number of membership applications were considered and the following were elected to membership:

Jobbers—Julius J. Bantlin Co., Cincinnati; Belcher & Loomis Hardware Co., Providence, R. I.; Corpus Christi Hardware Co., Corpus Christi, Tex.; L. L. Ensworth & Sons, Hartford, Conn.

Manufacturers—Buffalo Forge Co., Buffalo, N. Y.; Douglas-Dahlin Co., Inc., Kansas City, Mo.; General Automotive Corp., Chicago; Globe Manufacturing Co., Battle Creek, Mich.; Kokomo Automotive Mfg. Co., Kokomo, Ind.; King Sewing Machine Co., Buffalo; David Lupton's Sons Co., Philadelphia; Perfection Heater Co., Cleveland; Webster Electric Co., Racine, Wis.

All except 10 of the 265 available show exhibit spaces were allotted to applicants, the 10 being held open for new members.

## CANADA'S FOREIGN TRADE IS MAKING BETTER SHOWING

In the four months to July 31st, the aggregate value of Canadian imports and exports, \$479,500,000, was ten millions greater than in the corresponding period of last year. And the gain was in exports. We sold abroad \$27,300,000 more of domestic products, and bought \$17,600,000 less of foreign goods. The balance of trade in the last four months was \$7,000,000 in favor of Canada, whereas a year ago there was an adverse balance of \$38,000,000.

## CANADA SUPPLIES 34 PER CENT OF CARS USED IN INDIA

ABOUT thirty-four per cent. of the motor cars now being used in India are made in Canada according to a report from H. A. Chisholm, Canadian trade commissioner in Calcutta.



# CANADIAN AUTOMOTIVE TRADE BUYERS' DIRECTORY

## AUTOMOBILES

Willys-Overland Limited, Toronto.  
McLaughlin Motor Car Co., Ltd., Oshawa,  
Ontario.  
Earl Motors Inc., Jackson, Mich.  
Gray Dort Motors Ltd., Chatham, Ont.

## AUTO ACCESSORIES

Gill Mfg. Co., Chicago, Ill.  
Canadian National Carbon Co., Toronto.  
Cutten & Foster, Toronto.  
A. B. Jardine & Co., Ltd., Hespeler, Ont.  
Kemp Metal Auto Wheel Co., Toronto.  
Motor Necessities, Ltd., 231 Somerset  
St., Winnipeg.  
Pressure Proof Rings Co., Montreal, Que.  
Penetang Carriage Co., Penetang, Ont.,  
and Toronto.  
Richardson & Bureau, Montreal, Que.  
Shaw Auto Salvage Parts Supply Co.,  
Toronto.  
Thexton Machine Works, 736 Dundas St.  
E., Toronto.

## AUTOMOBILE WHEELS

Kemp Metal Auto Wheel Co., Toronto.

## AUTOMOBILE TIRES

Premier Tire & Rubber Co., Ltd., Toronto  
and Beamsville, Ont.

## BALING PRESSES

J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## BINDERS

International Harvester Co., of Canada.  
Ltd., Hamilton, Ont.

## BELT LACINGS

Flexible Steel Lacing Co., Chicago, Ill.  
and London, Eng.

## BRAKE LINING

Richardson & Bureau, Montreal, Que.

## BATTERIES

Canadian National Carbon Co., Toronto.

## CARRIAGES

Penetang Carriage Co., Penetang, Ont.,  
and Toronto, Ont.

## CREAM SEPARATORS

De Laval Co., Ltd., Peterboro, Ont.  
International Harvester Co., of Canada.  
Ltd., Hamilton, Ont.

## CRANES (Floor)

A. B. Jardine & Co., Ltd., Hespeler, Ont.

## DAIRY SUPPLIES

De Laval Co., Ltd., Peterboro.  
International Harvester Co., of Canada.  
Ltd., Hamilton, Ont.  
R. A. Lister Co., (Canada), Ltd., Toronto.

## DUMP BODIES

Dominion Truck Equipment Co., Ltd.,  
Kitchener, Ont.

## ELECTRICAL EQUIPMENT

Canadian National Carbon Co., Toronto.

## ENGINES

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## ENGINE STANDS

A. B. Jardine & Co., Ltd., Hespeler, Ont.

## FEEDERS

J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## FARM MACHINERY

Birdsell Mfg. Co., Toronto and South  
Bend, Ind.  
International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
John Deere Mfg. Co., Ltd., Welland, Ont.

## FLOOR CRANES

A. B. Jardine & Co., Ltd., Hespeler, Ont.

## GRINDERS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
R. A. Lister Co. (Canada,) Ltd., Toronto

## HOISTS

Dominion Truck Equipment Co., Ltd.,  
Kitchener, Ont.

## HOOKS AND HANDLES

Flexible Steel Lacing Co., Chicago, Ill.,  
and London, Eng.

## LAMP GUARDS

Flexible Steel Lacing Co., Chicago, Ill.  
and London, Eng.

## LIGHTING SYSTEMS AND ACCESSORIES

Canadian National Carbon Co., Toronto.

## LUBRICANTS

Imperial Oil Co., Ltd., Toronto.

## MACHINE TOOLS

Butterfield & Co., Rock Island, Que.

## MOWERS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
John Deere Mfg. Co., Ltd., Welland, Ont.

## MILKING MACHINES

De Laval Co., Ltd., Peterboro.

## OILS

Imperial Oil Co., Ltd., Toronto.

## PISTON RINGS

The Piston Ring Co., Ltd., Montreal, Que.  
Gill Mfg. Co., Chicago, Ill.

## POWER MACHINERY

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## PULVERIZERS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## PRESSES

A. B. Jardine & Co., Ltd., Hespeler, Ont.

## ROAD GRADERS

J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## ROCK CRUSHERS

J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## SLEIGHS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## STACKERS

J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## TRACTORS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.  
John Deere Mfg. Co., Ltd., Welland, Ont.

## TRACTOR PLOWS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
Cleveland Tractor Co., Cleveland, Ohio.  
John Deere Mfg. Co., Ltd., Welland, Ont.

## TOOLS

Butterfield & Co., Rock Island, Que.

## THRESHERS

Birdsell Mfg. Co., Toronto and South  
Bend, Ind.  
International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## TIRES

Premier Tire & Rubber Co., Ltd., Tor-  
onto and Beamsville, Ont.

## TWIST DRILLS

Butterfield & Co., Rock Island, Que.

## TRAILERS

Dominion Truck Equipment Co., Ltd.,  
Kitchener, Ont.

## TRUCKS

Dominion Truck & Equipment Co., Ltd.,  
Kitchener, Ont.  
International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## TRUNKS

Lamontagne, Ltd., Montreal.

## WAGONS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## WRECKING CRANES

A. B. Jardine & Co., Ltd., Hespeler, Ont.



# This Issue Features "CASTE"

*By W. A. Fraser*

**T**HIS is a story pulsating with the life, romance and adventure of India one hundred years ago. It is exotic, colorful, fast moving, and is the latest novel from the facile pen of that master story-teller, W. A. Fraser, whose "Three Sapphires," "Bull-Dog Carney" and "Mooswa," have made his name a household word in Canada. This long, book-length novel will be run complete in four issues.

## *Other Fact and Fiction Features of the* **OCTOBER 15th ISSUE**

### **Bumps in a Bumper Crop**

—by Guy Morton

Some amazing reasons selected from real life, showing why the Western farmer may be more courageous than prosperous.

### **Merchantmen on the Seven Seas**

—by Norman Reilly Raine

The concluding chapter of a fascinating, human-interest story of Canada's Merchant Marine.

### **Keeping the Well Child Well**

—by Alan Brown, M.B.

Extraordinarily valuable hints as to what to feed your child during its first year.

### **Amazing Voyage of Capt. Choy**

—by N. deBertrand Lugin

For the first time in history a Chinese junk crosses the Pacific—and it is captained by a woman!

### **In His Own Coin**

—by Morris Longstreth

A story of the primeval forest. The saving of a man's soul as well as of his life.

### **Myra**

—by Beatrice Redpath

Illustrating the adage that What's one man's meat may be another man's poison—even when it is a woman.

### **Some Amiable Interludes**

—by George H. Ham

The genial Colonel wanders all over the map and records some side-splitting experiences.

### **The Timber Pirate**

—by C. Christopher Jenkins

The next to last instalment of this fast-moving story of pulp and paper intrigue in Newer Ontario.

Onoto Watanna by Elizabeth Bailey Price. Working and Starving in New York by Onoto Watanna. Easier Money Creates Dearth of Bonds. Review of Reviews—the cream of the world's literature.

**20c MACLEAN'S 20c**  
"CANADA'S NATIONAL MAGAZINE"

—At All News Stands—



## Occurrences and Oddities

Truck business reviving rapidly. You can sell trucks NOW.

W. C. Durant broke ground recently for the new factory at Flint, Mich which will turn out the new Flint Light Six.

August was the largest month in the history of the Moon Motor Car Co., dispelling the idea that July and August are "off months."

John N. Wiliys is back from a nine weeks' foreign interlude. His estimate of the business situation abroad will be awaited eagerly.

The Bearings Service Company has been dissolved and the parties thereto will service their own bearings. Sound business procedure.

Dodge is contemplating a new manufacturing building in Detroit to cost \$1,500,000. Nothing much the matter with their sales organization.

According to the N.A.C.C., the first eight months of 1922 equalled all of 1921 in automobile production. Aren't you glad you're in the business?

Ford's total closed car output for 1922, it is estimated, will be 247,308, or an increase of 201 per cent. over 1919. An indication that is worth noting.

Michigan reports connect the name of Edward Ver Linden with the production of a new car. Mr. Ver Linden resigned about two months ago as vice-president of the Durant Motor Co., of Michigan. Always room for one more.

This sounds Irish, but it's true—that the sun shines brighter on rainy days than when the sky is cloudless. And the hay is more easily harvested. Figure it out yourself. The buyer has more time and there are fewer competitors. It pays to make calls while the rain falls.

Durant has recently added the Mason truck line to the Durant family. With his new "Star," the Flint Six, shortly to be produced, his presidency of The Locomobile Company and various other enterprises, Mr. W. C. Durant is about the busiest man in the country. Incidentally, A. C. Mason, who designed the Mason truck, is credited with building the first engine put into a Buick car.

The Turks tax automobiles £110, donkeys £2. Wonder which form of transportation the Nationalist leader employs. Some one suggested that Pasha Mustapha Kemal.

Alfred H. Swayne, financial vice-president of the General Motors Corp., went to Europe recently a decided pessimist. He came back "hopeful." If everyone keeps his head, economic victory across the pond is certain.

Studebaker sales for the first six months of this year were 60,053 cars as against 34,466 for the corresponding period last year. With expansion of plant capacity, President Erskine expects the combined facilities for production will enable them to turn out 600 cars a day by January 1923. That's progress.

There was a 600 per cent. increase in motor traffic into Canada from the United States during the last calendar year. The Parks Branch estimates this traffic to represent an expenditure in Canada of more than \$108,000,000.00. Think of it—one hundred and eight million dollars! And yet some dealers don't consider tourist trade seriously.

Some one rises to tell us that the car market is near saturation point. An executive of a bearing company with his office right in the centre of Motor Row in Chicago, who is unquestionably in the car owning class, says that he has never been asked to buy an automobile. Salesmen are going right by his door every day. There are hundreds in the same position. We could own a car if we stretched a point or two, and yet we have attended dozens of Motor Shows—the big ones too—and no one has invited us to buy. If you think the market is saturated, look around a little. "Ask 'em to buy."

There is an ever-growing tendency among manufacturers to fully equip their cars. A new model was recently put on the market with extra tire and tube, nicked radiator shell, aluminum step plates, drum type tire cover, front and rear bumpers, de Luxe moto-meter, hinged bar radiator cap, custom headlights, cowl lamps and ventilator, windshield wings, windshield visor, tail and stop light signal, mirrorscope, clock, heater and built-in tool compartment. As Al Jolson would say, that's the "snake's hips" for the ultimate consumer but where does the accessory dealer get off? And where is it going to stop?

### ASK 'EM TO PAY

THE MONEY that is owed to the shop by the car owner for work done belongs to the shop operator and not to the car owner. The shop operator should ask for it—and insist that he get it.

If you buy some money from the bank for sixty days the banker asks you for it at the end of sixty days and doesn't stop asking until he gets it. This is the banker's idea of the way to handle debts. He doesn't have a very high opinion of people who aren't as good at asking for their money as he is at asking for his money. If you want to stand well with the banker collect what folks owe you.

Many dealers believe they will lose customers if they ask 'em to pay. Remember this: The minute a man owes you money you have lost him as a customer until he pays up. He will run a bill until he is ashamed to meet you on the street and then go to some other shop and run up bills there or pay the other shop cash.

### This Dealer Is Making Maintenance Pay

(Continued from page 7)

lantern." Lectures illustrated by lantern slides showing all the parts of a car, are given by the manager. These lectures cover every phase of car mechanism and are intended to instruct the mechanics on the proper functioning of the car, power plant and its assembly.

Cane advertises in the local papers every day, running a small ad., and in the automobile section of the Saturday papers he runs a special advertisement. He does practically no canvassing for business. His establishment is so well known, and a reputation for good work, coupled with constant advertising, makes it unnecessary to canvas for ordinary work. At the approach of winter, though, his men make a canvas of the various industrial plants and commercial houses for winter overhauling.

### Handling Radio

A new line with Cane, and one which he expects will blossom into good healthy autumn and winter business, is radio receiving sets. This line, he says, fits in nicely at a time when the ordinary automobile business begins to fall off. Like everything else he does, Cane has gone into the radio business seriously and systematically. He has a full set rigged up in the reception room and gives all the concerts and lectures. Occasionally with the aid of an old phonograph horn and several feet of wire he entertains the whole street to a real concert. People as they pass, stop to hear and many of them have been induced to buy. One window is given over entirely to radio, and all the parts are displayed on a specially built merchandiser. Each part is ticketed and the price clearly marked.



The only equipment, except the milker, which is used twice a day—730 times a year. A steady profit for both dealer and farmer.

"It is my opinion," said an implement dealer to me recently, "that more net profit comes to me and more profit goes to a customer when I sell him a cream separator than comes from the sale of any other unit of farm equipment among the many implements and machines that I sell. You know the click of the binder is heard for only twenty days in a year while the hum of the cream separator is heard 365 days. Twice a day it is used—730 times a year—and you can sell cream separators every month in the year. It is a steady profit-maker for the implement dealer and for the farmer." — Farm Implement News.

More profit for both dealer and customer from the sale of De Laval Cream Separators than from any other equipment.

## One of the Best Years We Ever Enjoyed

We are pleased to announce that our sales year which ended September 1st was one of the best we ever enjoyed. While business in certain sections is not yet quite back to normal, it was enough better in others, so that on the whole business averaged up very well. This we attribute to the following three conditions:

(1) The unusually favorable position of the dairy industry as compared with other branches of farming. It has been demonstrated in a striking way that the dairy cow is the most profitable means of marketing farm crop. During the past year there has been a great increase in the production of milk and butter, and most gratifying is the corresponding increase in consumption of these products.

(2) De Laval Agents have been quick to take advantage of the foregoing condition and have carried their message right to the farm-

er's home. Wherever this has been done sales have resulted, not only in our line, but in such other lines as they may have handled. For the past two years we have consistently advocated that, "The Sales are out in the Country," and we know this plan has brought and will continue to bring business to dealers who practise it persistently.

(3) De Laval Products themselves have never been better, and information from many sources indicates that they have never stood better in the public estimation. During the past year proportionately more De Laval Cream Separators were made and sold than ever before, and an extensive investigation by a group of farm papers discloses the fact that 51% of all the Cream Separators in use are De Laval. The De Laval Milker is also rapidly gaining in popularity and this business is sure to grow to large proportions.

Thus, with extremely favorable conditions, aggressive action on the part of agents and company, backed up by superior products, it is not to be wondered at that business is good.

With such momentum and with abundant and cheap feed crops in sight, business for the following year is bound to be exceptionally good.

No line you can handle will make you move more in the long run than the De Laval. De Laval Cream Separators and Milkers are easier to sell, move faster, are marketable every day in the year, give the customer more profit and satisfaction, and create and keep friends for the dealer.

If we are not adequately represented in your community, get in touch with us now and be in position to get the "Cream of the Separator and Milker business."

## THE DE LAVAL COMPANY, LIMITED

MONTREAL PETERBORO WINNIPEG EDMONTON VANCOUVER



Sooner or later you will use a  
**De Laval**  
Milker and Cream Separator





*The  
Better  
Wheel*



*The  
Wheel of  
Metal*

## It is Indestructible

Each year marks the introduction of new departures which make the automobile safer and more convenient. Engines, tires, starters and the general design and equipment of all cars are different and better to-day. Improvement in automobile wheel construction has probably lagged behind other elements of car design—but improvement has finally come. This improvement is seen in the

## Kemp Metal Auto Wheel

This wheel is made of extra strong steel and is light in weight and has been designed to withstand shocks, and wear and tear, under which any wooden wheel would collapse.

The Kemp Metal Auto Wheel will not break or bend. It has been put to the severest tests an automobile may be subjected to—and it has

never failed to come through without injury. The wheel has all the advantages of a wooden wheel in addition to being indestructible.

Such a wheel as the "Kemp" is destined to become universally popular. Many cars are now equipped! There will be thousands of others, and you should be interested in securing the agency for these wheels!

*Write for Information Today*

**The KEMP METAL AUTO WHEEL CO.**

LIMITED

LISTOWEL - ONTARIO



# Canadian Automotive Trade

Published Monthly by THE MACLEAN PUBLISHING COMPANY, LIMITED, TORONTO

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VOL. IV. No. 11

TORONTO, NOVEMBER, 1922

Subscription Price  
\$2.00 per year.

# Gill



## One-piece Piston Rings

### increase your accessory business

There is a size of Gill Rings to  
fit every make of internal com-  
bustion engine manufactured.

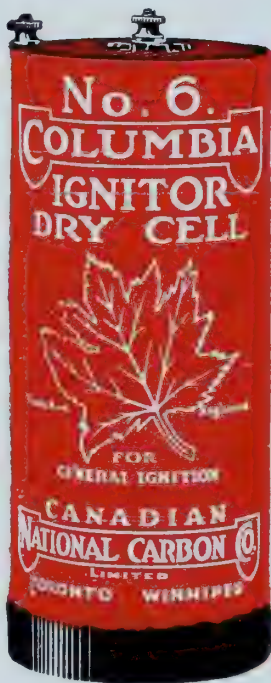
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# The Most Profitable Group of Dry Batteries You Can Sell—



## What Columbias Do—

- Ring Doorbells
- Buzz Buzzers
- Provide ignition for Fords when starting
- Fire Blasts
- Run Toys
- Make Telephones talk up
- furnish ignition for gas engines



Long life, high ignition power, low cost, all make Columbias the favorite Dry Cell in thousands of homes, on farms, and for industrial uses.

Your customers will appreciate the longer service which only Columbias give. This long life reduces the cost of ignition. The simplicity of Columbias enables any person to make the simple connections which bring the full power of Columbias into action.

Columbias are the only dry batteries consistently advertised on a nation-wide scale.

*Order Columbias by name from your jobber.*

CANADIAN NATIONAL CARBON CO., LIMITED  
Montreal Toronto Winnipeg

# Columbia Dry Batteries

— they last longer



## The Dealer's Responsibility

### A Man-Size Job

**A** DEALER sells a tractor, thresher, plow or other farm machine and promptly forgets it in the rush of the next day's work.

Yet in making that sale he has done an infinitely bigger thing than the mere selling of a machine. He has made the world's supply of food and clothing a little more adequate. He has done his share toward solving the most important problem that civilization ever faced. That is a real, man-size job.

Every day the world needs a fresh supply of food and clothing, which come only from the farm.

To produce them at a profit, the farmer must use machinery. The more efficient his machinery, the better his farming and the greater his buying power.

The circle brings him right back to the dealer who fulfils his responsibility to his community by selling *the most efficient machinery*. That dealer will have a steady job until food and clothing go out of fashion.

Case Power Farming Machinery enjoys the reputation among farmers of being second to none in efficiency and dependability. In practically every test in which they have been entered Case machines have won first place. Ask any farmer who has ever used a Case thresher or tractor. Farmers know that Case machinery can be depended upon to do their work, and do it well.

For these reasons a contract to sell Case machinery is an asset to any dealer who wants to succeed in a big way. Write today for information about the new Case Dealer's Agreement.

### J. I. CASE THRESHING MACHINE COMPANY

Dept. Z216

(Established 1842)  
Racine

Wisconsin

Factory Branch: Toronto, Ontario.

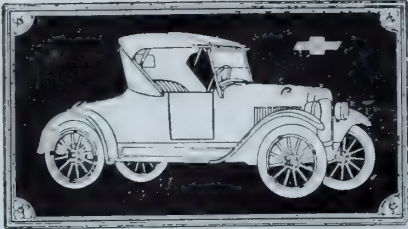
NOTE:—Our plows and harrows are NOT the Case plows and harrows made by the J. I. Case Plow Works Co.

**CASE**  
TRADE MARK REG. U.S. PAT. OFF. AND IN FOREIGN COUNTRIES  
**POWER FARMING**  
**MACHINERY**

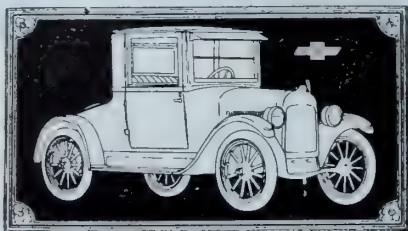




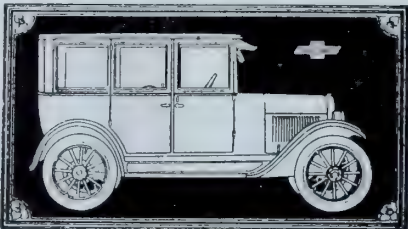
# Announcing a Complete Line of The New Superior CHEVROLET FOR 1923



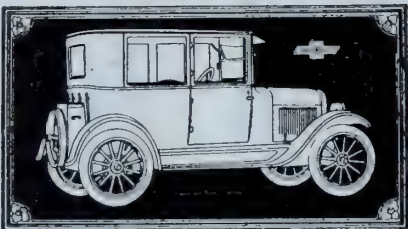
NEW SUPERIOR (2 PASS.) ROADSTER—\$695



NEW SUPERIOR (2 PASS.) UTILITY COUPE—\$910



NEW SUPERIOR (5 PASS.) SEDAN—\$1125



NEW SUPERIOR (5 PASS.) TOURING COUPE—\$1115

## The WORLD'S GREATEST MOTOR CAR VALUE

CHEVROLET has answered the ever increasing demand for quality cars at rock bottom prices with the announcement of the new SUPERIOR Models.

Sensational values are represented by this new line, at the new reduced prices.

Improved quality, artistic design, added equipment and increased economy combine to emphasize Chevrolet's admitted leadership as producer of the world's lowest priced quality automobile.

This New SUPERIOR Chevrolet line affords an unusual opportunity for Chevrolet Dealers.

Prices F.O.B. Oshawa  
Government Taxes Extra

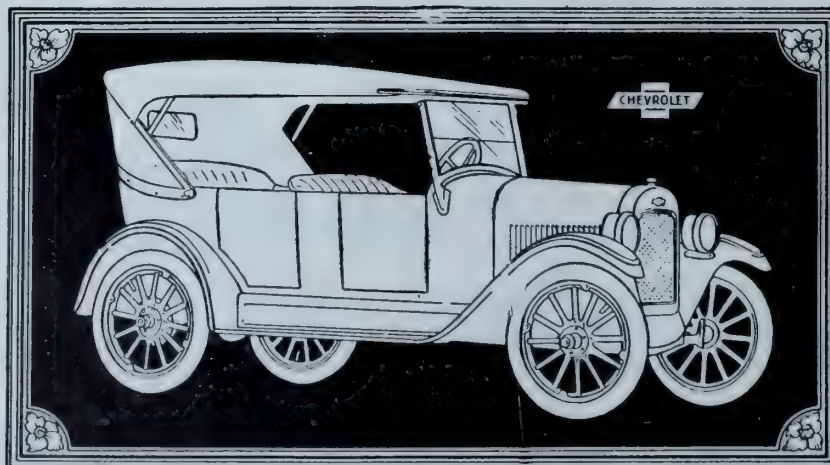
CHEVROLET MOTOR CO., OF CANADA, Limited  
Subsidiary of  
General Motors of Canada, Limited

OSHAWA

WINNIPEG

Dealers and  
Service Stations  
wanted in  
Territories not  
adequately  
covered.

Ask your  
Chevrolet  
Dealer about  
our deferred  
payment plan.



NEW SUPERIOR (5 PASS.) TOURING—\$710

### Some Distinctive Features

Streamline body design with high hood; vacuum feed and rear gasoline tank on all models; drum type head lamps with legal lenses. Curtains open with doors of open models. Closed models have plate glass. Turnstedt regulated windows, cord tires, sun visor, windshield wiper and dash light. Touring Coupe is equipped with auto trunk on rear.

All closed bodies are built by Fisher.



Member Audit Bureau of Circulations

# Canadian Automotive Trade

Vol. 4

NOVEMBER, 1922

No. 11

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SUBSCRIPTION PRICE—Canada, \$2 a year; United States, \$2.50 a year. Invariably in advance.

## Are Trade Papers Read?

When you consider that Trade Papers are read for business information; that they make a direct appeal to the selfish interest of their readers; and that in order to keep informed regarding changing conditions in any particular industry, or business, *Trade Papers must be read*—it is apparent that the Trade Papers offer manufacturers a medium for reaching prospective customers who, otherwise, can only be reached economically, by salesmen or through the mails.

Did you ever try to imagine what kind of an average man reads your Trade Paper advertisements, and ask yourself what you would say to him about your products if he were sitting at your desk? If you have not, try it some time and have an imaginative talk with the readers of your Trade Paper advertisements. It may help you to make your Trade Paper advertising more effective.

If a real, live salesman, who packs a heavy grip—a sample case and a portfolio of "Sales Helps," from town to town, were to walk into a dealer's store and repeat word for word the "Sales Talk" contained in some Trade Paper advertisements, the dealer would think that he was crazy and "run him out of town."

### How Do You Talk?"

Do your Trade Paper advertisements tell the message that you want to send to the dealers who sell your products?

Do your Trade Paper advertisements—talk as you would talk—if you were talking to these dealers in your own office?

Do they say what your salesmen say, when they open their sample cases—and try to get an order? Are you talking to the dealers—through your advertisements—and using the same kind of sensible language that you would use if you were speaking with them "face to face"?

You should use the same common sense in your Trade Paper advertisements that you would use in talking to a dealer in your office: give real facts about your products; convincing reasons why dealers can, and should, sell them; straightforward talk about your co-operation and sales help.

*Make your advertisements talk!* Every advertisement is a message. Say something! The best advertisement is the one that says what you would say—to a dealer if you were talking to him in your own office.

But don't say too much. Other people are not so keenly interested in your business as you are. *Men read Trade Papers for business information—because they must—and not for recreation.* They are frequently read during business hours, therefore your advertisements should be concise and easy to read.

Dealers are in business to make money. *They are merchants who prosper by buying for re-sale at a profit—and do not play favorites.* If you offer them good values at terms on which they can make a good profit, they are just as willing to sell your merchandise as that of any other manufacturer.

*A good profit and a quick turnover make the strongest possible appeal to the average dealer.*

No inflexible rules can be applied to Trade Paper advertising. Publications in different industries require different treatment. Experience is the only guide. Advertising is one of the things you cannot tell someone else how to do.

Reprinted by permission of

FRANK M. COMRIE COMPANY





Admittedly the Best Storage Battery  
Proposition for Dealers.

---

*Liberal Contract*

---

*Consistent Advertising*

---

WE INVITE APPLICATIONS FOR  
TERRITORY NOT ALREADY COVERED

---

**PREST-O-LITE COMPANY OF CANADA, LIMITED**

**Montreal**

**Toronto**

**Winnipeg**



# Canadian Automotive Trade



VOLUME 4

TORONTO, NOVEMBER, 1922

NUMBER 11

## Sells Tires and Accessories at a Profit

By Having the Right Goods on Hand at all Times, by Varied  
Display and Advertising and by Giving Satisfactory Service This  
Dealer is Making His Business Pay Big Dividends

**I** HAVE no hesitation in saying that the success we have achieved in selling tires and accessories is due to three things:

"Having the right goods on hand at all times:

"Letting the public know we have the goods, by display and judicious advertising:

"And giving the best service of which we are capable."

The speaker was A. F. Dell, automotive equipment and tire dealer, of Brantford, Ontario. He has been in the business for eleven years and is conducting a very high class establishment. He carries a large stock of equipment and tires and in addition does vulcanizing and battery repairing.

Dell believes in having the goods in stock, and considers it a black eye for himself if a customer asks for something and he hasn't got it. He can't recall any time within recent years when this occurred, but he watches his stock carefully, nevertheless.

He handles nothing but the best goods in all his lines, and does not confine himself to an exclusive agency for any particular line.

For instance, he sells the tires of all of the four or five best known makes on the Canadian market. He says he can remain in business only so long as his customers patronize him, and so long as human nature remains as it is some will demand one thing and some another. He can't sell everybody a "Neverblow" tire so he also stocks the "Wearever." If neither of these are acceptable, then perhaps the "Big-mileage" will fill the bill. Dell says he is selling tires as a business and there is no reason why he should not be able to meet the requirements of all of his public.

The same policy is followed in regard to automotive equipment. All the well known lines are kept in stock. In fact the stock is so comprehensive it would be difficult to select something it didn't contain.

### You'll Get It At Dell's

Dell's store has a reputation for miles around his district.

Motorists and even garagemen in

---

Dell visits with his customers and the meetings are of the right sort and at the right place. He meets all customers who call at his place for tire repairs, battery work, gasoline or air. At the pump or at the service door he engages them in conversation; asks them how business is, how the car is running, etc. While speaking he takes in all details of the car and by suggestion gets a lot of tire business and a goodly number of accessory sales.

---

neighboring towns have a habit of saying to the anxious tourists looking for an odd part: "If you can't get it here, you'll get it at Dell's in Brantford."

A Detroit detective some time ago was motoring from Detroit, and his route took him through Brantford. When many miles from Brantford he developed electrical trouble and on taking his car to a garage was told he required a new distributor point. The garageman didn't have one on hand, and on learning that the detective was travelling toward Brantford he told him he

would be sure to get one at Dell's. At several other towns en route he tried to purchase a distributor point with the same result and the same assurance that he "would get it at Dell's." When he finally reached Brantford, the detective immediately proceeded to Dell's where he purchased the required item, much to his satisfaction.

That is just one instance of many that Dell can give showing how far a reputation for having the goods in stock and giving reliable service can travel.

Dell lays great store on his mechanical service, but says that keeping the goods on hand that the public want is as much a part of his service as vulcanizing or battery repairing, and perhaps contributes even more than they to the building of his business.

### Meets Customers At the Service Door

Dell gets his business principally by service, display and advertising. He has been so long in the business and is so well known it is not necessary for him to canvass in his territory.

But he visits with his customers, nevertheless, and the meetings are of the right sort and at the right place. He meets all customers who call at his place for tire repairs, battery work, gasoline or air. He knows practically everybody by name. At the pump or at the service door he engages his customers in conversation; asks them how business is, how the car is running, etc. While talking his eye is wandering over the car and taking in all the details. When he notices tire bruises and cuts he draws the owner's attention to them in this manner: "Say, Tom, what is the matter with your left front tire? It seems to me to be badly bruised. You sure struck a snag when that happened.





Dell is a strong advocate of display. This accessory window is featuring winter equipment in a Hallowe'en setting. Rubber plants are used at the back of the window with good effect.

You had better have those cuts repaired, for water will seep through and rot the fabric and reduce your mileage a great deal. If you haven't time to leave your tire now, bring it along the next time you are passing and we'll fix it up in no time."

He gets a lot of tire repairs in this manner and a goodly number of accessory sales too.

While he will not pester a customer to purchase any item, he will drop a suggestion here and a word of advice there, which usually results in a sale of some sort. Such items as tire gauges, moto-meters, bumpers, etc., are frequently sold in these conversations at the pump.

#### Suggestive Selling

In Dell's opinion suggestive selling is more effective than the direct method. If a man can be educated to the economic and comfort advantages of an article he is easier sold. This idea in selling is part of Dell's service. He sells an article because he believes it will benefit the customer. This might seem at first sight to be something approaching altruism, but it is really good business, as Dell has proved to himself over and over again by customers coming back and bringing other customers with them. A satisfied customer is a great booster and a prospect getter. Selling by suggestion implies educating the customer, which is the only satisfactory way to sell, in Dell's opinion.

#### Strong Displays

Dell is a strong advocate of display.

His store, situated on a corner with two large windows, is admirably adapted for displaying goods. One window is devoted to accessories and the other to tires. Both are strikingly trimmed. They carry a seasonal appeal and are appropriately dressed on festive occasions.

For instance, when Automotive Trade called to see Dell his windows were fea-

---

While he will not pester a customer to purchase an item, Dell will drop a suggestion here and a word of advice there, which usually results in a sale of some sort. In Dell's opinion suggestive selling is more effective than the direct method. If a man can be educated to the economic and comfort advantages of an article he is easier sold. Selling by suggestion, he says, implies educating the customer, which is the only satisfactory way to sell.

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turing winter equipment such as robes, heaters, chains, anti-freeze and equipment for closed cars, and as the season was Hallowe'en they had the appropriate atmosphere—colors suggesting the fall of the year and a fringe of colored tissue paper at the top of the windows

showing pumpkins, witches and all the rest of it.

This Christmas, as in past years, his windows will make a Christmas appeal. There will be a tree, lots of snow, perhaps an imitation coal fire and a carefully chosen arrangement of accessories.

#### "Ask 'Em To Buy" Inside Store

Inside the store, as the picture on another page of this issue indicates, a real "Ask 'em to buy" effort is made. Equipment of every kind is displayed conspicuously in showcases, on the counters, around the walls, in the aisles and on a large table in the centre of the store. While there is an immense amount of equipment displayed there is no confusion or suggestion of overcrowding. It is simply that no waste space is tolerated. Every inch has to be paid for and therefore every inch must produce.

Dell's store is just like a huge window; goods are not STOCKED, they are DISPLAYED. An article has no selling value hidden in a drawer or securely stored away in the basement. "PUT THE GOODS OUT IN FRONT AND THEY WILL SELL THEMSELVES," is Dell's motto.

Considerable reinforcement to his selling force is found in the mechanical demonstrators provided by some of the manufacturers. The demonstrators are right out in front where everybody can see them and are operated at every opportunity. Dell says you can sell a man easier if in some practical manner he can be shown what the article will do. For instance, in selling a grease gun, you might talk for a week about the great pressure the device is capable of developing without actually driving the message home. It is an easy matter, however, with a demonstrator which not only shows the amount of pressure developed in pounds by means of a dial, but also demonstrates how the grease is distributed. Several such demonstrators are in use daily.

#### Repair Department

In the tire repairing and battery service end of the business Dell's establishment is strong. In both departments complete equipment is provided for handling every kind of job in tire and battery work. Both departments are conducted separately with a working foreman in each.

A large business is done in winter battery storage. Everything is done to build up this kind of business for, as Dell says, "the more batteries handled, the more people come to our place; and the more people we induce to our store the more chances have we for making equipment sales. In fact that was one of the reasons why we started battery work two years ago."

The equipment in the tire department includes a large hydraulic press, driven by a 7 h. p. motor, with a capacity of two hundred tons. This press is used



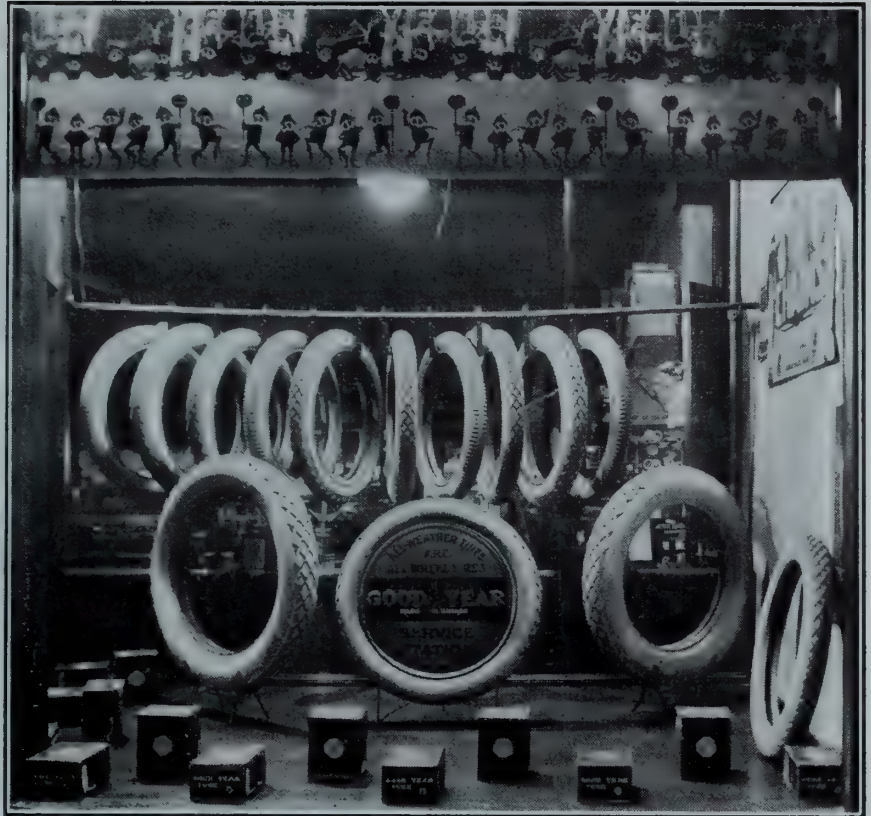
for handling the largest solid truck tires. A full set of pneumatic tire casing and tube repair equipment is also installed.

Besides the ordinary tire work, the vulcanizing department is kept busy during the winter by repairing heavy rubber boots. These boots will also be stocked for sale this winter.

#### Holds His Customers

Ten people are employed on Dell's staff the whole year round. After he has men trained to his ideas of service he doesn't want to lose even one of them in any season. With this policy he is able at all times to give maximum service. His men are kept busy too.

When the business was started eleven years ago, it was of modest size and for four years it had no opposition. Since that time several other like businesses have been opened, but in spite of the opposition Dell's business has grown steadily; it has kept its old customers and added considerably to their number. This has been accomplished by giving the service the public wants; employing only thoroughly trained mechanics and salesmen; having the right goods on hand and telling his clients that he has them by display and advertising, and last, but by no means least, intensive and sometimes selective selling.



Here is one of Dell's tire windows. It is a good example of his style of tire display. Colors suggesting the fall of the year and a fringe of colored paper at the top of the window, showing pumpkins, witches and all the rest of it give a fine Hallowe'en atmosphere.

# Sell Accessories For Christmas Gifts

The Automotive Dealer Should Start Now to Prepare His Campaign for Christmas Merchandising. This Story Gives Some Suggestions Which Will Help Him to do This

**T**HOUSANDS of people during the Christmas season will be puzzling their brains over what they will give for Christmas gifts.

Usually when they start out they have no idea what they want. Something novel, useful and not too expensive is their cry. They will spend hours and even days looking for that something, and their only guide is the displays of the different merchants.

Those merchants who have the most attractive displays usually get the cream of this business. They employ every means they can think of to put the Christmas atmosphere into their displays and to give suggestions about suitable gifts for Dad, Mother, Sister, Brother and Friend.

Practically every conceivable kind of goods are sold as Christmas gifts. As years roll on people are more and more discarding the pretty, but generally useless gifts, and choosing something that can be used every day.

Why should the automotive equipment dealer allow the jeweller, haberdasher, bookseller, etc., to corral all this business? What more useful presents can a person give than items of equipment such as radiator caps, motor heaters, food warmers, robes, flashlights, etc?

#### You Can Share in this Business

Is there any reason why tires and equipment cannot be displayed and merchandised as easily as jewellery, for instance?

One person in every sixteen in Canada for whom Christmas presents will be bought this year owns a motor car. Is there any reason why the automotive dealer cannot sell at least one piece of equipment to every car owner in his district?

Remember for every car owner there are several persons who will be purchasing at least one gift for him this Christmas. Supposing there are six

persons anxious to give that car owner a present of some sort—and six is a conservative number—isn't it reasonable to suppose that two at least of these gifts could be something for his car?

There is only one reason why those two accessories will not be sold and that is that there will be no effort made.

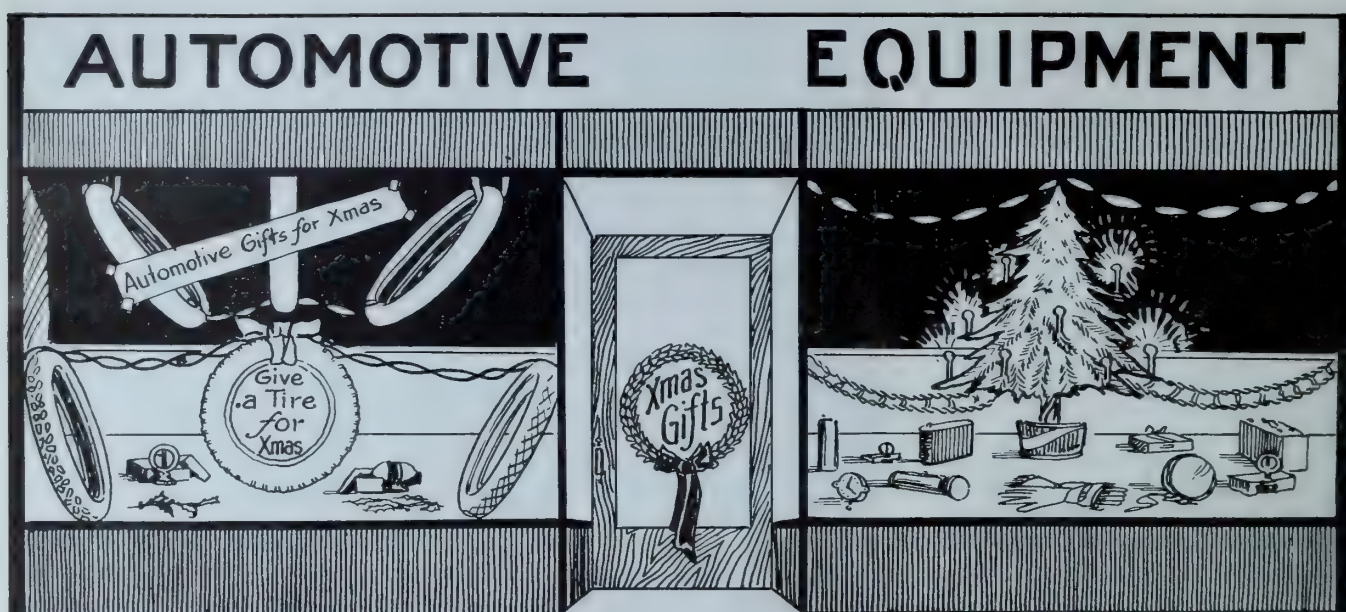
#### Accessories Lend Themselves to Christmas Merchandise

Most of the accessories for a car are very attractive and lend themselves to display as naturally as the goods of any other line of merchandise. Indeed some of it is much more attractive than many of the things sold as Christmas gifts.

Bearing the foregoing facts in mind the automotive dealer should not hesitate to offer his goods for the Christmas shopper. He should start Now.

Plans should be drawn up early so





that when December comes he is ready to open up his campaign.

#### Not Necessary to Invest a Lot of Money

It is not necessary to invest a lot of money in so-called Christmas novelties and extra stock of various kinds. Every dealer of automotive equipment has already on his shelves the goods for this trade. It is the everyday, useful items of equipment that he should feature. All that is required is for the dealer to put these goods to the front; present them to the eager shopper in a suitable Christmas atmosphere.

In merchandising for Christmas the most important item next to having the goods on hand, is display. The accessory store and window should be as attractive as they possibly can be. Particularly so since most of the Christmas shopping is done by women.

#### Appeal to the Women

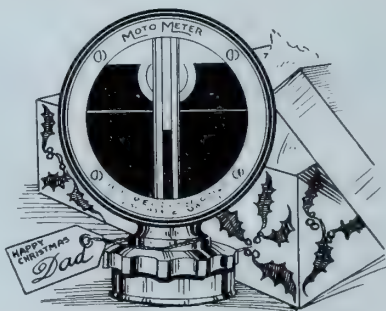
Women as a general rule are more particular about the appearance of the place in which they buy than men. They like to shop where everything is clean bright and Christmassy.

The store to attract women should be above all else well lighted. It is a waste of time and effort trying to sell goods in a badly lighted place. People are like the flies and moths they are irresistibly drawn by bright lights. If the dealer for any reason is not satisfied with his lighting system and if he does not know himself how to improve it he should seek the help of someone who does know. In this issue of Automotive Trade we publish an article on effective

lighting which will help the dealer to a better understanding of this difficult subject.

#### Should Have a Tree

Every dealer should have one tree at least. A small tree in the window and perhaps a larger one in the store suitably decorated would give the right atmosphere. Cards could be hung around



the store and in the window giving suggestions for Christmas gifts.

The windows should not be overcrowded with equipment. A careful selection of seasonal items such as motometers, flashlights, visors, robes, windshield cleaners, foot warmers, and other merchandise of this type will be found effective for window display. In the store the showcases can be trimmed along the same lines. Such items as bumpers, jacks, chains, tires, etc., can be displayed in a conspicuous place, along the aisles and on the counters.

#### Wrap Articles in Christmassy Papers

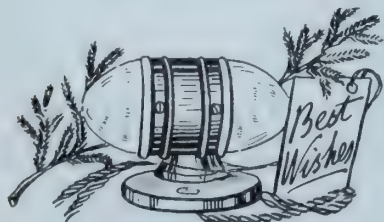
It is a good plan to have special holiday paper and colored ribbon or string to wrap articles. Articles so wrapped might be placed in the window and on the counters and showcases. In this connection it may not be amiss to quote from a letter sent to the merchandising director of the Automotive Equipment Association by a jobber who tried the Christmas merchandising idea last year with much success. The letter is writ-

ten in the light of his experiences of last year. Here it is:

"I would suggest that the dealer pick out some special articles, such as spotlight, motometer, and visor. Spend about 25 cents for some holy paper and gold cord and buy at least two of each of these items.

"Wrap one in a Christmas package and have the other open to demonstrate. Make a point to see the wife, or daughter or sweetheart of every car owner that you can get in touch with during the early part of December or for a month before Christmas. Pick out a certain one of these articles you are concentrating on that the car needs, then approach the lady, explaining that the ordinary Christmas gift, such as socks, neckties, and shoe strings are getting to be more or less an old habit not thoroughly appreciated and soon forgotten, while something for the automobile will be appreciated more than anything else, as a man's automobile is next to his heart.

"After accumulating the orders he gets for these articles, which should all be taken for delivery about December 20, the dealer can order the equipment from his jobber, get it in stock only a few days before he delivers it, get the money for it before he has to pay for it and do a thous-





and dollars worth of business on \$25 investment, making \$350 profit in less than thirty days."

That is one suggestion which dealers might like. It is practical and profitable and has the distinct merit of having been tried successfully.

A Toronto jobber has prepared a card which dealers can use. This card is reproduced on this page and explains itself. Such a card can bear the dealer's name and be put in all mail, and can also be distributed by hand. A card like this cannot fail to interest Christmas buyers. It may perhaps suggest the very things their minds have vainly been trying to picture. The card has also a distinct merit in that it gives the prices opposite the various articles. This is an important point, for the buyers who will be most interested in this equipment will be women who have no knowledge as a rule, of automotive equipment prices. When they learn that prices are in most cases comparatively low, they will be readily attracted.

#### Get in Touch with Your Jobber

Practically all the automotive equipment jobbers in Canada are preparing some kind of Christmas sales help for the use of their dealers. These are designed to help the dealer to sell by display, by letters and special advertising. The dealer should get in touch with his jobber at once and ask for their help and suggestions.

#### Use the Telephone

The telephone at this time can be used with good results. By calling up the women among his customers the dealer might be able to give suggestions which will help them in their Christmas buying and increase his own sales considerably. In this manner hundreds of people could be canvassed during the early part of December.

Supposing twenty calls were made each day for two weeks, that would be equal to 240 visits. Isn't it reasonable to suppose that out of that number at least 40 sales could be made? Twenty telephone calls a day could be made by any dealer, or someone in his staff, without the slightest inconvenience. He could do that in the morning.

The telephone is a cheap and very effective method of selling but unfortunately it is often overlooked by dealers.

#### Start Now!

The dealer should start now to prepare his advertising for Christmas business. He can get inspiration for his display and advertising by watching the windows and advertising of the department store, drug store and jewellery store. He can also get suggestions



### Give Automotive Gifts For Xmas

#### ANY ONE OF THESE ARTICLES WILL PLEASE A MOTORIST

Radiator Cap .....	\$1.75
Radiator Wing, small.....	1.75
" " large .....	2.50
Rubber Running Board Mats, pair...	2.00
Aluminum " " " " .....	3.50
Tire Cover .....	2.90
Luggage Carrier .....	3.00
Outlook Windshield Cleaner .....	3.00
Boyce Moto Meter, midget model .....	2.50
" " junior .....	5.00
" " universal .....	7.50
" " standard .....	10.00
Outside Mirror .....	3.00
Inside " .....	3.75
Windshield Visor, Presto Junior .....	4.50
Eveready Flashlight Spotlight .....	4.75
Pair of Drednaut Chains, 30x3 1/2 .....	6.00
" " " 34x4 1/2 .....	9.25
Auto Ray Spotlight .....	7.00
Mayo-Skinner Automatic Windshield Cleaner .....	7.50
Klaxon Horn, No. 5 .....	8.75
Auto Reelite Spotlight .....	14.65
Glengarry Robe .....	15.00
Bumper, Lyon .....	20.00
Hartford Shock Absorbers, set .....	50.00

This card has been prepared by Cutter and Foster, Toronto, automotive jobbers and is being sent to their dealers with the suggestion that they mail or distribute them to their customers. Such a card cannot fail to arouse interest in automotive equipment as Christmas gifts. This cut shows both sides of the card, the price being included is a distinct advantage.

along this line from the jobber.

#### Said it With Tires

Last Christmas a Kitchener, Ont., automotive dealer, N. E. Hett, placed an automobile tire against a background of imitation snow. Green mosquito netting was stretched across the back of the tire, while paper letters pasted on the netting, spelled the words: "Season's Greetings." The lettering was pasted at the top.

The G. Norman Baughman Co., Tampa, Fla., has adopted the slogan "Buy an Automotive Gift for Christmas." It is painted on a card similar to the one reproduced here. "An ever visible reminder of your Thoughtfulness," is a selling slogan used by the Moto Meter Co., Long Island City, N. Y. This is printed on sticker stamps and these are

supplemented by a cut-out for the dealer's sales counter.

#### Let 'Em Know

No matter who you are or what you sell, study carefully to see if your business doesn't in some way fit into this Christmas idea and if so, give the idea a good push. It's going to take a lot of pushing, but then—there are a lot of us to do the pushing.

DECORATE !!! Make your windows look Christmassy and attractive! LET THE PUBLIC KNOW that we are merchandising the most attractive Christmas line upon the market to-day! TRY IT and then compare December's business with your sales of a year ago! WE KNOW WHAT THE RESULT WILL BE—She'll go over with a BANG !!!





# What You Can Do To Keep Your Repair Shop Busy This Winter

To Get Business Into the Garage in Any Volume During the Winter Requires Selling—Real Hard Selling. This Article Gives Some Ideas That Have Been Tried Successfully.

By DONALD A. HAMPSON

**I**N CONSIDERING the subject of increased Winter business for the garage man, this article is confined to repairs and maintenance of existing cars, not to the sale of new cars. And it should be noted in the beginning that **there is no royal road to this business—it must be secured by attention to small details and the adoption of numerous ideas, each seemingly of little value.**

What has been done in one place may usually be done in another and the garage that co-ordinates

and collects these various ideas will be successful in rounding up all the Winter business it can handle.

To get business in any volume into the repair shop, requires selling—real hard selling. The effort must be intelligent, well thought out, and well sustained, and should be as thorough as any selling effort for cars, trucks, tractors or equipment. There is plenty of profitable business waiting to be claimed, right at your door, every day, every week.

**F**IRST to be considered in any rugged clime is the matter of freezing.

A "radiator service" will prove attractive to those who must keep their cars in more or less extensive use all winter. Doctors and other business men who must be out of doors greatly appreciate having the bug-bear of frozen radiators taken off their hands.

A nominal charge per week is made for the service and materials charged for at current prices. Thus, a doctor can have his radiator tested and a suitable alcohol mixture for temperature changes maintained for, say, a dollar a week plus the charge for denatured alcohol used at a dollar a gallon or whatever is the local selling price. A busy owner is glad to be relieved of such a task—he merely stops at the garage when he has a few minutes to spare, an employee slips a hydrometer into the radiator, consults a chart, and adds water or alcohol as the case may be.

## Get the Customer Into Your Shop

Getting the car owner into the garage is a stroke of business in itself. He may need other repairs or supplies while he is there—work that he would put off indefinitely otherwise. A radiator cover, a warm hand steering wheel, a heater, a half cover for the front of the radiator honeycomb—these are some of the seasonable little things that are very likely to occur to those who ride in the cold.

Of course, there is battery service. If they were prodded, thousands of owners who now let their batteries go during the cold months would pay a small sum for storage and charging. Most owners ease their consciences by the thought that they will slip out to the garage or barn every six weeks during the Winter

and run their engine half an hour to keep the battery charged but, actually, if they do this once before Spring they are doing better than their fellows—as the lawyers say, the "case goes by default."

Other owners get as far as removing the battery and storing it in the cellar. This is no better than leaving it in the car except that it guards against running down if there is a ground in the circuit.

## Go After Storage Business

This entire battery question is one of education. A battery standing in the cellar will not charge itself—make that plain to the owner. In fact, the evaporation of water is hastened by the dryer air and serious injury may be done when, in the Spring, the electrolyte is found to be well below the tops of the plates. And a battery left in a car may run down with equally disastrous results. The chances of charging at home during the Winter are slim. Any garage man who circulates among his customers can do a world of good for them by making plain these simple facts and the customers in return will be found ready to pay the small charge for real service.

Then there are the people who nominally put up their cars for the Winter but who may wish to take them out on a bright Sunday afternoon (this applies, of course, to those cities and localities which are not completely snow bound for several months in the automotive sense). Many such owners have never given the storage question serious thought. In their own private garage, they put the car up on boxes or jacks and there it stays because it is too much

work to go out in a cold building, let the car down all around, pump up tires, break away the ice that has encrusted the bottom of the big door, and get the thing running again.

But if they could phone to the public garage and have their old Rolls-Royce ready for a spin in half an hour, how gladly they would pay the few dollars a month it costs. Along with this, there is the satisfaction of having the car stored in a warmed place. Any garage that has space to spare can get storage business by advertising, though usually personal soliciting will fill the stall in jig time. A scheme that has worked well in several instances where the dealer's storage space is limited is to rent a vacant store in a building that has janitor service and to store cars there. Such a space is clean and light, it can be kept at a temperature of 45 to 50 degrees at little extra expense, and it has a strong appeal for the owner, who dislikes a dark corner in a dirty garage just as much as he hates to store the car in his private garage where the temperature may run to 40 below and the entrance be blocked for three or four months.

## Then You'll Get Repair Business

But chiefly, there is the item of repairs. Winter is the logical time to repair cars. The work can then be done thoroughly because there is no rush to "get the car out so I can ride to-night." Labor is in better shape in the Winter too—in the Summer, there is always a care-free attitude about garage men, floaters are hired to take care of the rush, and the best mechanics in the shop may be called off a fine job to put five of gas in that flivver out front. But in Winter, all is changed; the floaters



are gone—the good mechanics remain and are anxious to work.

How many owners run their cars for all they are worth during the Fall months, justifying themselves with the thought that when they put the car up for the Winter, they will have it completely overhauled! Or if not overhauled, they will have that piston ring job done or the brakes lined or a new clutch bushing put in. It is a safe bet that not one car in ten but what is run in for the last time in just such a condition.

And the owners are willing to pay for the work. It is just a case of going after them. Garage men with good memories can secure a lot of this work by solicitation; other garages follow the excellent plan of going over their records for the past season and sending a form letter to each of their customers, mentioning the past pleasant relations and calling attention to the facilities for doing Winter overhauling.

#### Do You Keep a Record of Work That Might be Done on Cars

There are a number of garages that make a habit of noting other troubles when making specified repairs; for instance, when new pivot bolts were put under a certain McLaughlin, the mechanic noticed that the steering gear bushings and pins were worn (not seriously, but getting worse all the time) and so reported when turning in his time on the job—the owner's attention having been called to this but he wishing to let it go a while longer. Now, when this re-

cord was scanned in December, the owner got a nicely-worded letter reminding him of the defective parts and requesting a chance to do it while the car was laid up.

This is one of the most valuable aids in getting repair business—a record of work that might be done. A good overhauling job often saves the owner the price of a new car that he might otherwise buy. Let the garage man talk figures of this kind once in a while—he may postpone the day when he will sell that owner a car but he will win a friend. A \$60 cylinder grinding and piston ring job may secure a satisfactory year's running for an owner and that at a time when he can least afford to buy a new car.

The record of a noisy rear end, a piston that pumps oil, clicking front wheel balls, a radiator leak, or a poorly working clutch may be the means of securing work to keep the entire force busy during the off months, each record in itself bringing in a small job, perhaps, but large in the aggregate. It is a case of being fore-armed.

And then there is the owner who would have work done on his car if he could get it to a garage. He knows that workmen cannot do a good job in his own cold building but he does not want the trouble of getting the car out, which latter may include chopping ice, shovelling snow, and towing. The garage man that offers to move the car to his own heated building is going to get business.

An amusing plan but none the less effective was followed by a garage man in Ontario. He called it "Following the coal man." Most of the Winter, there was snow to a depth of one to three feet, more next to the side walk where shovelling had piled it up. The coal man would have to shovel through the deepest part, then his teams would break a fair path down the same driveway that the car used. The worst was then over and if a car could not be driven out under its own power, it could be successfully towed. By calling up owners who had had their drives thus broken, a good many cars were secured for overhauling.

#### Make Your Place Attract Business

There is one big point that garage men should consider in soliciting Winter repair work. That is the kind of place where the work is to be done. If you have a nice big light garage, bear on that fact and keep bearing on. Men can do better work in a well-kept shop than in a dirty hole. A warm clean place begets good conscientious work.

So scrape the floor, wash the windows, put in a skylight or two, and add a coating of bright paint to the walls. Then invite your motoring friends around to see the place and call attention to your unusual facilities for doing a first-class job of overhauling. Such a shop keeps good men, good men go hand in hand with good work, and good work is what every owner is looking for, Summer or Winter.



This dealer, who is selling and repairing cars has arranged a very attractive parts and equipment display in his showroom. It would be difficult to imagine a more orderly display, and it is in a small city. F. W. Staples, Ingersoll, Ont., is the proud owner.



# Canadian Automotive Trade

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## Christmas Selling

THE IDEA of Christmas merchandising of automotive equipment is firmly taking root in the minds of hundreds of dealers throughout the country. They are going to tackle this new idea with characteristic enthusiasm. The jobbers are also getting ready, in fact are ready, to lend every assistance. Special cards are being printed, advertising is being prepared, and salesmen are going out to offer suggestions and advice.

There is no doubt about the success of the enterprise if everybody does his bit. The public is ready to buy almost anything at Christmas time for gifts. A suggestion from the automotive dealer will start the people buying really useful gifts and forgetting the pretty, nonsensical trifles of former years. All the dealer has to do is to get started.

Start now to plan your displays and advertising. Let the people know your goods are suitable for gifts. Put a Christmas atmosphere into your windows and store and concentrate on seasonal articles. The results will surprise you.

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## Used Cars

IT IS NATURAL at this time that the attention of most dealers be drawn to the used car. During the summer months a great many cars have been traded in and are still unsold, and so long as they remain in that condition they represent a serious liability.

The used car question is constantly with us, and the attempts to solve it by a formula have been legion.

There is no magic formula that will wipe the used car out of existence. As long as hundreds of thousands drive automobiles and as long as new cars are sold to old car owners, just so long will there be used cars and a used car situation.

The individual dealer to a large extent holds the answer in his own hands.

A thorough knowledge of his business and the application of that knowledge, together with good sound business judgment when a used car is taken in as part payment on a new car, is the one and only way for the dealer to keep himself from becoming enmeshed in the tentacles of his automotive octopus.

The dealer who consistently takes in used cars at the market value, and carries on an active used car campaign all the time so as to keep his stock of used cars down, will generally keep out of trouble on this score.

Every dealer can build up a reputation for being a reliable person from whom to buy a used car. He can do this, first, by taking the used car in at the correct price; second, by putting the car in good running condition; third by placing a sale price on it moderate enough to be attractive and high enough to insure him against loss on his original sale, which he can do if he appraised the car correctly when he took it in.

## Demonstrations

THE TEST of a salesman is his ability to get the prospect's signature on the dotted line. It matters not how eloquent his talk or his boasted ability to size up his man if he fails to close the deal.

Some salesmen are too ready to arrange for a demonstration. Practically every prospect that comes in is offered a demonstration after a few minutes of conversation.

Why can't a prospect be sold in the salesroom without a demonstration?

We are not advocating abolishing the demonstration, but it is being overworked to the detriment of sales. Many a prospect is sold on a certain car before he enters the salesroom. He has been talking about it with his family for weeks, and has been driven in a similar car many times by friends. Why should he require a demonstration?

Salesmen should be trained in closing sales right in the salesroom and demonstrations should only be given when the prospect will not close in any other way. Remember every demonstration given eats into the profits of the sale and every delay in closing a sale multiplies the chances of your competitor and the danger of your prospect changing his mind.

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## This is Selling

THE FOLLOWING story told by Harry Collins Spillman at a meeting of automotive equipment men will interest every dealer in the automotive industry:

A man was telling his friend some years ago about a certain ruby he had been wanting to buy for some years. The friend said: "We have a jewelry store in this town that is unlike any jewelry store in this world." So the man went over to this jewelry store and asked to see some stones.

After the clerk had shown him the stones the man walked out saying that he had not seen just what he desired and had decided not to buy. The owner of the store took him by the arm, and asked: "May I have the privilege of showing you that stone." The man told the proprietor he had quite made up his mind not to buy any of the stones. The proprietor said: "I don't want to sell you a stone, I just want to show it to you."

So they returned to the counter and the proprietor took out a stone, lovingly held it to the light, described where it came from, told of the charm the colors of the stone had for him and remarked its quality and cut. The man bought and then turned and asked: "How is it that you sold me the stone when the clerk could not?" "He is a good clerk," the manager replied, "but I possess one thing which I wish I might give to him and that is a love for the thing I sell. I love every stone, stickpin, ring and fob in the store. I love it all. I did not get any sales resistance from you at all. When you bought that stone, I did not sell it to you for we both approached it from the same angle—we bought it together."

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## Car Specifications

COMMENCING with this issue, Canadian Automotive Trade will publish each month two pages of passenger car specifications. These specifications cover the main essentials of a car. As the space is limited, only the outstanding features can be published. If there are other features which our readers would like to see admitted to these specifications a letter to the editor specifying the item and giving reasons for its admittance to the chart will receive every consideration.

The chart is not quite complete in this issue owing to some of the information arriving late. This information will be included in next month's list.



# Put "Display" On Your Selling Force

Striking Displays in the Salesroom and Accessory Department  
and Windows Are Real Business Getters During Winter. Plan  
Them Now and Make Your Place a Strong Selling Force.

**W**ITH the coming of winter and the consequent falling off in the sale of automobiles and accessories, every possible means of increasing sales should be resorted to; the proper display of merchandise, be it motors or accessories, ranks foremost among these.

In the summer months, a motorist uses his car more on the average, and inspects it more often than in winter.

On warm summer evenings, an overhauling to one's tools, tires and equipment is a common occurrence; while in cold weather a full kit and proper condition of essentials is more often taken for granted. It rests, therefore, with the dealer to call the owner's attention to his equipment needs—winter and summer.

## Emphasize Seasonal Equipment

Equipment display is seasonal, and it is obvious that the proper time to show robes, heaters and hood covers is the winter. One often sees on a hot summer day an accessory window with a hood cover occupying the place of honor, while useful articles of the season are struggling for a place on either side. Of course certain accessories are in demand all the year 'round and should not be neglected, but summer or winter equipment should be emphasized, in season, as it is not an all the year selling proposition.

It is a common thing to see a window that possesses plenty of advantages as regards space and light, littered with an array of jumbled up articles. Such a window is a drawback and loss to its owner. It represents waste space. A window that has a few articles nicely arranged will make far more sales than one containing a heterogeneous collection of all that the garage has to offer. Overcrowding is the greatest source of lack of result from window display, and the dealer who does not study this will probably consider that the window is getting him no results and is not worth while wasting time over.

The most frequented part of a garage is the logical place for an accessory window; and the drive in should be this place. If a gasoline pump is located in the driveway this makes this selection most desirable, as the attention of the transient motorist, as well as of the steady customer, is thereby attracted. While waiting for gasoline to be pumped into his car a man's attention will be drawn to a well appointed window, and if it is of the real "ask 'em to buy" variety, the sale of one or more articles may follow the purchase of gasoline.

By A. R. EVERS

A wideawake garage man will check over the appointments of a car he is servicing; and by drawing his customers attention to the display he may sell him something he wants, but had not thought of until he saw it in the window.

Another very suitable place for an accessory display window is in the showroom of a motor agency, preferably near the door. This need only be in the form of a showcase, with a few articles well laid out, so that, when the sale of a car is completed, the salesman may point out to his customer different things that he needs or might like installed on his car. This is usually done by dragging the purchaser out of the showroom to the accessory room, where ever it may be, or by trying to explain what the articles are like. A silent salesman in the showroom would overcome this and would promote the sale of extras.

The stock carried should be as large as the business warrants and as usefully extensive as possible. Any new article coming on the market should be thoroughly examined as to its selling possibilities and, if stocked, should be brought to the customers' attention as effectively as possible. Judicious use of posters, counter display material, etc., in conjunction with a new article will help to keep the shelves free of unsaleable stock; and as a rule display material of the right sort can be made into a very attractive window setting.

Not enough thought is given by dealers to the possibility of utilising a car in the show room to display accessories. Usually, cars are shown with no extras; or else they are shown equipped with certain articles that are "standard equipment," and the dealer has no opportunity to sell his customer any accessories. To the dealer who handles a car with no extras included, a big field for the sale of accessories could be opened by equipping one car in the showroom with the most popular and saleable articles in the accessory department. Bumpers, stop lights, heater, mirror and other extras could then be shown to the purchaser of a car as they would look and work on his; and this should considerably increase the dealer's accessory turnover. It would also tend to give the salesman more interest in the sale of extras, and be of benefit to them and to their firm.

The evening is usually the time when

a man has opportunity to look around, and is therefore a good time to bring accessories to his notice. To do this windows must be illuminated, and great results can be derived from the proper kind of lighting.

## Good Lighting Important

If the window is well dressed, colored lights can be used to great advantage in attracting and interesting people.

When a window fronts on a main street, the display lights should be kept on until the theatres have closed for the night, in order to draw the attention of that large class of people who are possible buyers, but have no time during the day for even mental shopping.

Automobile salesroom lighting is of great importance, and much more attention is being paid to this now than heretofore. The inverted bowl light which shines on the ceiling and is reflected down is the most popular; and a concealed trough over the window containing lights shining down is to be found in a good many showrooms. The addition of light colored walls and floors, and of course a white ceiling enables the passerby to see clearly into every corner of the showroom.

The automobile showroom window offers a very great field for window display, and comparatively little advantage is taken of this. At Xmas time, most windows are "dolled up" a bit; in some cases most attractively. But why limit the novel displays to Xmas time? Any number of displays could be arranged at very little cost, and would surely be productive of results.

Attention to detail is essential to successful showroom and window displaying. Cleanliness is all important. Clean accessories and polished cars boost themselves by their appearance. Wooden floors should be polished and drip-pans arranged under each car to keep the room clean. Clean windows for an accessory display are essential and attract attention, while a well arranged window with a dirty glass will draw hardly a glance. The placing of a car or article so as to make the most of the natural light and to hold the eye as long as possible should be considered.

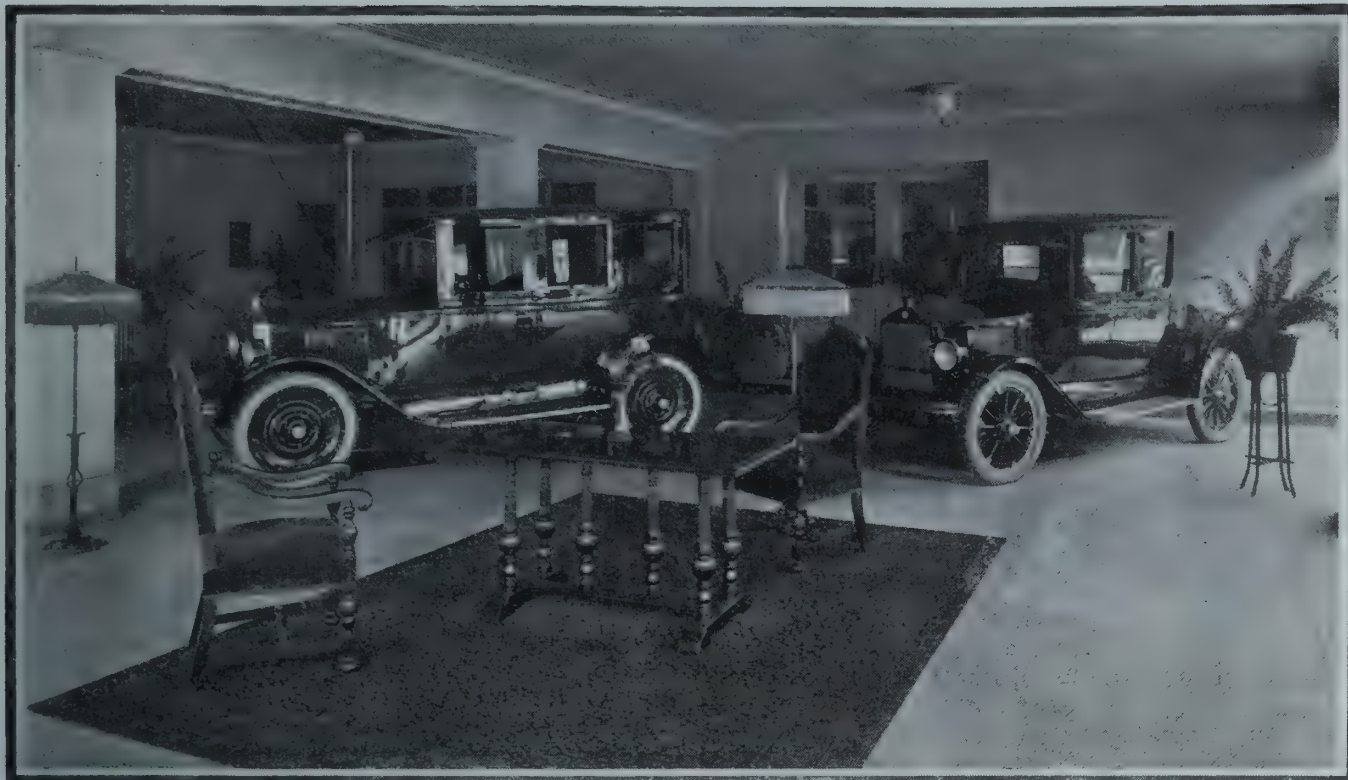
The fact that department stores employ trained window dressers indicates that they have great faith in the power of window display as a means of merchandising their wares, so why should not cars and accessories be sold in the same way?





These windows and accessory stores are going to sell this winter. They have goods to sell and are telling the people about it. The top picture shows the Colling Tire Store, Toronto; the bottom picture is A. F. Dill's store of Brantford, Ont., a story of which appears in this issue; the picture in the circle shows the inside of the Apex Auto Supply of Hamilton, Ont.





Gray-Dort cars are being sold in this beautiful salesroom. Walnut furniture, handsome rugs, floor lamps and ferns give it an unusually attractive appearance. Its attractiveness is heightened by light-colored walls and soft lights. This is the salesroom of the Gray-Dort Motors, Toronto branch.

This is the salesroom of a distributor handling an expensive line of cars. It creates a favorable atmosphere for the presentation of the cars displayed. Comfort and beauty combine to make it an ideal place to sell and buy a car. It is the salesroom of the Automobile and Supply Co., Toronto.





# Make Your Place Sell After Dark

There is a Strong Silent Selling Force in Good Illumination.  
Good Light Will Increase the Selling Value of Your Salesroom or  
Garage This Winter. This Article Shows How to Do It.

By J. T. SCOTT

**I**F YOU simply wanted to store your goods you would probably rent a shack or a floor in a warehouse. But as you want to **sell** them, you rent a showroom or store.

To sell, you must make an invitation to the prospective buyer. And what better invitation can you offer than to make your store cheerful and well lighted? Good illumination is the best silent salesman you can have. Light has an attraction for buyers just as it has for other winged varieties. When you are out, and if you need a meal, you may have a choice of spending your money in several places. It is certain that you are not going to some dismal, ill-lighted parlor. You are going to buy your meal at the brightest and most attractive place. That is just what the buyers of other lines do.

**T**HERE is a strong, silent selling force in good illumination. To get the value of this force, and use it, no wonderful engineering mathematics are needed. Only just the common sense application of thought to conditions as you have them.

Everyone has to use light and lighting equipment. The first general trouble is either there is not enough light, or it is so misplaced as to be a glaring nuisance and so defeat its useful purpose.

In considering the subject of illumination it should be borne in mind that it is **LIGHT** that matters—not so much the lighting equipment. Many dealers have no doubt been inclined to keep away from an overhauling of their lighting system on account of expensive fittings and fixtures that have been recommended by men whose aim is to sell fittings regardless of how such things are to aid in providing more light. Some of the fixtures offered for sale are atrocious, considered from any point of view. Bear in mind this rule. It is to have a good quality lamp, of adequate light-giving capacity, properly placed with the light source shielded from the line of vision.

How To Use the Selling Force of Light

Of course, scientific illumina-

tion design is a field that engages the attention of specially trained engineers. Therefore, it is not to be considered that anything will do and that the subject is to be handled without further thought.

This point will be appreciated by those who know the Laura Secord chain of Candy Stores. Make a mental comparison of the bright, cheerful lighting of these stores with some dimly lit uninviting downtown store and you will surely realize the attractive value of carefully selected and well placed lighting units.

Then, too, bad lighting makes not only a dismal outlook, but it appears cheap, it suggests poor quality and cheap wares. Now, as you are not handling cheap goods, see that the surrounding atmosphere you give to your store is comparable with the quality of the goods you offer for sale. In this connection the store lighting has not only its advertising value but it has other profitable resources as will be shown further on.

But bearing in mind the above rule, the following general survey will be of material assistance to the man who is determined to build for business during the dark winter nights by cashing in on



This salesroom is selling after dark. It is making a strong appeal to the prospective buyer. Buyers of cars this winter will get their cars at the brightest and best lighted places.



the value of better lighting in the showroom, store and garage. We will consider now some of the ways to use the selling force of illumination. The essentials are:

- Sufficient light everywhere.
- Freedom from glare.
- Choice of lamp and reflector.

A system simple, reliable and easy to maintain.

The first step in considering the installation is to determine how much light is needed.

A brief survey of the units, or standard of measurement used will enable us to figure the illumination values commonly referred to.

The unit used is the Lumen or Foot-Candle, which is an illumination value of one candle power over an area of one square-foot. It is as essential that you should be familiar with the measuring standard for light as it is that you have a knowledge of the relative values of the pound, yard, millimeter, etc., if you want to get value for money spent in buying light.

For showrooms and stores a useful standard of illumination is around twelve foot-candles, or the equivalent of twelve candle power per square foot of area judged at about three feet up from the floor.

In show windows the intensity should be much higher, so that about 25 foot-candles is recommended. This is necessary on account of bright street lighting and the possibility of well lighted stores on either side of you. A full measure of light must be given by yourself if your windows are to stand out as prominently illuminated.

In the garage, and about working areas, from 8 to 10 foot-candles will be found useful.

The size of lamps required to obtain the above suggested values is found by use of the following simple calculations.

A Area sq. ft. Total floor area sq. ft.  
per outlet =  $\frac{\text{Number of outlets}}$



Where low head room makes good lighting difficult. In this case effective lighting was secured by recessing the reflectors into the ceiling and fitting them with 200 watt Mazda gas filled lamps with opal globe beneath.

$$B \text{ Lamp lumens Ft.-candles desir'd x 1.5} \\ \text{per sq. ft.} = \frac{12 \times 1.5}{0.50} = 36 \text{ Lumens}$$

$$C \text{ Lamp lumens} = \text{Result from A} \\ \text{per outlet} \quad \times \text{result from B}$$

A numerical example of the above factors will be figured, taking a showroom floor 40 ft. by 20 ft., having eight outlets. We assume fairly light colored walls and ceilings. Should the walls and ceiling be dark then the figure in B above should be changed to 0.30 or 0.40. It might be pointed out here that these factors vary with extreme or unusual conditions but for general purposes one may proceed as suggested.

We will take the 12 foot-candles recommended in this example.

$$A = \frac{40 \times 20}{8} = \frac{800}{8} = 100 \text{ sq. ft. per outlet.}$$

$$B = \frac{12 \times 1.5}{0.50} = \frac{18}{0.50} = 36 \text{ Lumens per sq. ft.}$$

$$C = 100 \times 36 = 3,600 \text{ Lumens per outlet.}$$

Having found the required lamp lumens, the lamp agent's list will show that a gas filled Mazda lamp of 200 watts will give approximately the illumination needed.

#### Correct Voltage Important

When ordering lamps it is advisable to get those of correct voltage. Find out the voltage of your line at the socket. The efficiency of a lamp in candle power value depends upon its being burned at its designed voltage. Too often lamps are purchased at a stated wattage without the slightest regard to voltage. You suffer a considerable loss in light when you get lamps of say 125 volts and your line is only 115 volts. This is a point to which care should be given.

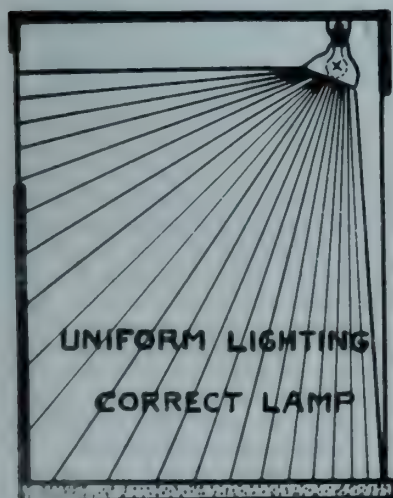


Fig. 1—Showing the importance of correct lamp for uniform lighting.



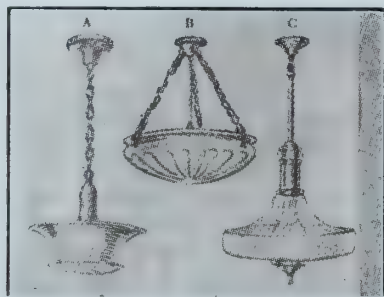
In the event of new wiring or altering the position of existing outlets the following table will be found very useful as an aid to fixing positions for units so that they shall be properly distributed:

Mounting Height of Units and Table of Spacing

Above Plane of Work or Counter	Above Floor	Permissible Distance Between Outlets	Distance Between Outlets and Walls
4	6½	6	3
6	8½	9	4½
8	10½	12	6
10	12½	15	7½
11	13½	16½	8
12	14½	18	9
13	15½	19½	9½
14	16½	21	10½
15	17½	22½	11
16	18½	24	12
18	20½	27	13½
20	22½	30	15

Figures are for feet. Plane of work or counter is assumed to be 2½ feet above floor. When work on a plane higher or lower than 2½ feet, then work from first column.

The proper location of outlets is of prime importance. If the location is made approximately close to the meas-



Semi-Indirect type fixture serves best for the interior of the showroom or accessory store.

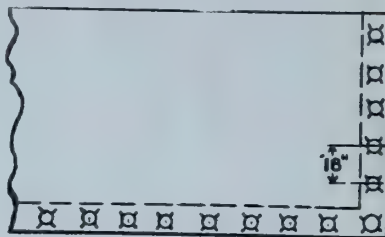
urements suggested in the above table, a substantially uniform illumination will result. There is a tendency on the part of the uninitiated to hang lighting fixtures too low, with the belief that better illumination will be obtained. This, however, is not the case. Lamps should always be kept well above the line of view.

The reflecting condition of the interior, that is, the color of the walls and ceiling, affects the illumination to a great extent. Dark colors like brown, dark green and grey, absorb a large portion of the light. Light colors like white, cream, pale grey, very light green, etc., are desirable wherever practicable since they reflect back the light and such colors are much more attractive. The painting, however, should be a matte or dull surface, otherwise there will be objectionable specular reflection.

#### Reflecting Equipment

From the large variety of lighting fixtures on the market the indirect or

semi-indirect will serve best for the interior lighting of the showroom or store for the automobile business. The semi-indirect type of unit has generally the best appearance and its use is recommended. This unit affords pleasing illumination by giving a thoroughly diffused light, hence the shadows are soft and there is freedom from glare. Since the light reflected from the ceiling has



Good window illumination is obtained by using the angle type of reflectors and spacing them 18" apart as shown in this sketch.

a downward direction, the illumination of shelves and wall cases is slightly better with units which direct the light to the sides. Semi-indirect units are illustrated by A B and C.

If direct lighting is already installed and you do not want the expense of changing to another type of unit, then use lamps of proper lighting value in proportion to the size of reflector and have the lamp's bowl enamelled to prevent glare in the line of vision.

It is a mistake, however, to keep in use with modern lamps a small reflector designed in the long ago for the carbon lamp. It is a horrible misfit and is as unseemly as a grown man in boy's clothing. Yet unfortunately many stores perpetuate this incongruity. One might as well keep to the old carbon lamp and so be consistent with old age. The idea of using the right size of lamp and reflector is to be remembered when using angle reflectors for window lighting. In the illustration Fig. 1 are shown sections of these windows; the first section with lamp and reflector as they should be, and the second and third with

effect of lighting by a few badly distributed drop lights—glaring, yet insufficient for general illumination of any value—plus a few hand lamps trailing around.

Garage and repair shop lighting is generally best accomplished by placing reflectors and lamps of adequate capacity fairly high up. A good distribution of light is obtained and free from obstructions. Often the garage has low head room, hence the placing of units next to the ceiling is of especial use. In the accompanying illustration (Fig. 3) is shown the effective lighting of a difficult location sometimes met with. Each unit resembles a porthole, the reflector being recessed into the ceiling and fitted with a 200 watt Mazda gas filled lamp, with opal globe beneath. In place of this particular arrangement, a R.L.M. reflector (Fig. 4) could be used with a 200 watt lamp bowl enamelled. In the illustration note the reflective value of light paint as an aid to general appearance and brightness.

#### Maintenance

A cause of loss in illumination must not be forgotten, i.e., the accumulation of dirt and dust on the reflectors and the lamp bulbs. The loss of lighting effect due to dirt and dust on the equipment is estimated by several authorities as being about ten per-cent. per month of the total light output. Remember therefore that water is cheaper than



Fig. 4. — The Bowl-Enamelled Mazda lamp and R. L. M. Standard Dome Reflector.

watts. A periodical cleaning up with soap and water will mean a high standard of service.

This article has been written to cover very general circumstances and to give the individual dealer an opportunity to see the possibilities of good lighting. Special circumstances will need special treatment and here we might suggest that the dealer will always find the electric light and power companies, and lamp makers anxious to give freely the assistance of their engineers for the consideration of particular problems, or even to give general advice. The dealer will find this is a profitable source of service if he will but call upon it for co-operation.

Proper illumination is a necessity in every showroom, store and garage. With its aid customers are attracted and sales increase. Any normal individual will patronize the store which is cheerful and inviting rather than the one which is gloomy and dingy. The tendency of the times is to progress. A well lighted store is evidence of the progressiveness of the management.

The efficiency of a lamp in candle power value depends upon its being burned at its designed voltage. Too often lamps are purchased at a stated wattage without the slightest regard to voltage. You suffer a considerable loss in light when you get lamps of say 125 volts and your line is only 115 volts.

the lamps too large and too small respectively.

Using the type of angle reflector illustrated good window illumination will be obtained by spacing the reflectors 18 inches apart along the front and side of window as indicated in Fig. 2.

In the garage and repair shop good illumination is as essential as in the store. Everyone has seen the painful



# Sell Your Battery Service This Winter

Battery Service Stations Above All Others Should Welcome  
"Bluff King Winter." Dealers Should Start Now to Tell Customers the Kind of Service They Can Give. Circular Letters Should  
Be Sent Out Frequently

**T**HERE is an old Lancashire saying "there's nowt so queer as folk." The author is constantly reminded of this fundamental truth when presented by the attitude of the average battery service station towards the possibilities of business development during the winter months. Apparently some one started the rumor that no business could be done during the winter months. So, as is usual with all rumors, the dismal tale achieved such gigantic dimensions that its originator would never have recognized the child of his imagination had he happened across it after making its journey round the trade.

By G. R. ARCHDEACON

battery, thereby ruining it beyond all repair.

Could battery men possibly have a more beneficent friend than "Bluff King Winter?"

"King Winter" having done so much for the battery man, what is the battery man prepared to do for himself?

## Get Busy Now

Right now is the time to "get busy." Place an order with some reliable firm for a list of names and addresses of car

in your service station, either to be interested in **KEEPING AWAY** from you, or **KEEPING FRIENDLY WITH YOU**. Just into which category your place will fit, depends wholly and solely upon **YOURSELF**.

Having secured this important information, naturally it is expected use will be made of it.

For the modest sum of \$1.50 a small filing cabinet with an index may be purchased and a sufficient number of plain cards 3 in. x 4 in. may be obtained for \$1.

Then enter the name of each car owner on a separate card and file it behind the index to which it belongs.

You can now at your leisure mail a circular letter to each car owner drawing his attention to the urgency of the need for **REGULAR AND FREQUENT** inspection of his battery thereby preventing it becoming sufficiently run down or discharged until it is liable to become frozen.

As this inspection service is entirely free of charge, with no obligation on the part of the car owner, there is no logical reason why he should not take full advantage of your invitation.

The main essential is to convey your invitation in a courteous, neat and enticing manner.

Having addressed your letter make an entry on the card of the date and number of letter sent.

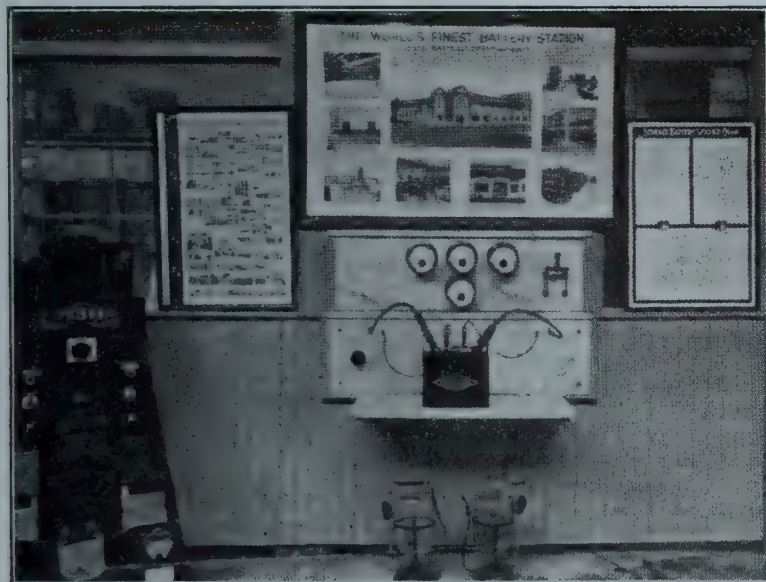
Do not leave it at that and grumble because your station is not crowded with new clients within 48 hours, but send out another letter about two weeks later, and keep on sending letters at regular intervals.

It has been written, "Man individually is an unsolvable problem. Man collectively is a mathematical certainty."

The first letter may fail to arouse much interest, but if frequently and regularly repeated, interest will be aroused in the mind of the average man, until finally he will anticipate your next message, speculating upon what you are likely to tell him.

Having persuaded the average man into this condition of mind you have "got him" for certainty. The average man will most surely pay you a visit some day out of curiosity.

This visit of curiosity is your opportunity to demonstrate your **IMPRESSIVE SERVICE IDEALS**. Personal relations have at last been established. If



With this display and test stand in a prominent place in his shop this battery dealer is impressing everyone who comes in with his ability to give service.

Battery service stations, of all others, should welcome "Bluff King Winter" with open arms and a cheerful smile.

Just reflect what King Winter will do for you.

He reduces the capacity of the battery. He hardens up the oil in the crank case.

He impedes the rapid vaporization of the gasoline.

He compels the longer use of head lamps.

He takes (in various ways) more power out of the battery.

He finally ends by **FREEZING** the

owners in your district. Such a list may be obtained for 1c per name for a list exceeding 2,000 names.

Bang goes twenty bucks, groans "Mr. Pessimist."

Well, my doleful friend, what if it does?

The most important thing any business man needs—**IS INFORMATION**.

Such a list places in your hands **INFORMATION** of the highest importance.

It gives you a list of names and addresses of every man who has some vital interest in a storage battery, consequently he has every reason to be interested



you know your job, you have secured a new customer, and one who will give you a "boost" among his friends.

On account of the liability of the battery freezing during the winter, it is most important that a campaign be conducted to induce the car owner to bring his battery to your place for storage during the whole period of winter.

Such a campaign can be most successfully conducted amongst a farming community, for in such districts the roads are closed to the motorists during the winter months, and as the battery obtains no "exercise," it becomes discharged, although never used.

### Two Forms of Winter Storage

There are two forms of winter storage:

Dry storage.

Wet storage.

In dry storage the battery is entirely "pulled down" and rendered completely inert, and all chemical action is arrested.

It is a trifle more costly than wet storage, but it adds to the life of battery the amount of time it remains in dry storage.

In the case of wet storage the battery is kept in a dry, warm place and receives a charge about once each month to keep it in condition.

It will therefore be readily understood that as all the plates are in the acid for the whole period of storage and need to receive their periodic charge, chemical action is continuous; the plates are subject to the usual corrosion and the paste is gradually "washed" out of the grids. Therefore the "life" of the battery is correspondingly reduced.

Such facts being properly and simply explained to the car owner, very little trouble is encountered in persuading him of the greater economy of dry storage over wet storage.

In preparation of a considerable influx of batteries for winter it is necessary that adequate equipment should be installed to take care of the various operations involved in the opening and ultimate re-sealing and re-charging of the batteries.

It is at this stage that a good, reliable discharge set proves a sound investment. Such a set can be easily assembled by any battery man of experience.

It is first necessary to purchase:

3 moving coil voltmeters, centre zero, reading on either side of the zero up to 3 volts. The face of the instruments should not be less than 3 in. in dia.

1 moving coil ammeter reading from zero up to 300 Amps.

1 carbon block variable resistance.

The instruments can all be purchased for about \$40, whilst the carbon blocks for the variable resistance may be obtained for nothing, being old worn out carbon brushes as used on the motors on street cars.

A frame in which to mount them can be made up from a dollar's worth of



This dealer is determined to make his store sell and goes back into history to get atmosphere. The building suggests an Aztec's apartment of centuries past, and combines old traditions with beauty, convenience and utility to a marked degree. It is the home of the Cassell Motor Co. at Santa Fe, New Mexico.

iron pieces, with an additional dollar for sheet and tube asbestos.

The whole can be easily mounted on marble slabs, making a most impressive display.

In making a discharge test, the following procedure is observed:

Two wings are taken from each voltmeter and connected to the positive and negative of each cell in the battery.

One wire is taken from one side of the ammeter and connected to one end terminal of the battery.

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On account of the liability of batteries freezing during the winter it is most important that the battery repairman start a campaign now to induce the car owners in his territory to bring their batteries to his place for winter storage. Such a campaign can be most successfully conducted amongst the farming community, for in such districts the roads are for the most part closed to the motorists during the winter months.

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The other end terminal of the battery is connected to the other side of the ammeter, through the variable resistance.

By tightening up the variable resistance (by means of the handle provided) more and more current is allowed to discharge from the battery until about 150 amperes are flowing through the resistance.

The voltage in each cell begins steadily to fall. If the battery is in good condition and free from internal short circuits, the pointers in each voltmeter should fall equally.

If, however, there is a fault in one of the cells, it will demonstrate itself by

the sudden falling of the needle of the voltmeter which is connected to the faulty cell, whilst the other voltmeters will show the normal steady fall of voltage.

A simple explanation to the customer before this test is made will prepare him for the result and as the instruments are large enough to be easily read he will at once appreciate the fact that there is something radically wrong with the cell which behaves itself in such a strange manner. He will likewise appreciate the necessity for the "opening up" of that particular cell. That is the moment the dollars begin to flow into the dealer's coffers, and owing to the indisputable evidence given by these instruments the customer is prepared to foot the bill without the misgivings of having had something "put over him."

The author knows of an instance where a dealer followed up these ideas with nerve and persistence. About two years ago he sent out 25,000 circular letters during a three months' campaign (mainly among farms) and, as a result, he secured approximately 1,200 batteries for winter storage. In the following spring he sold the owners over two hundred new batteries. Since then he has retained their custom and no longer needs to flood his territory with circular letters at the approach of winter.

Without the co-operation of "Bluff King Winter" it is doubtful whether he would have met with such signal success.

The moral of the tale is in Shakespeare's lines: "Sweet are the uses of adversity," supposing, of course, that King Winter means adversity. If you are apt to consider him as such, just screw your courage up to sticking point, go forth and greet him with a friendly smile, and turn to your advantage all the circumstances he creates.



# Accounting Plan For The Garageman

This is the Third and Concluding Article in a Series Dealing With Accounting in the Garage. The First Article Described Ledgers, Accounts Receivable and Payable, the Second, Distribution Sheet and Stores Ledger, the Present Deals With the General Ledger and Reviews the Whole Plan

By S. P. COOK

Burroughs Adding Machine Company

**H**OW far would an army get in which the commanding general had to keep his eye literally on all the troops under him, in order to know what they were doing, how successfully they were doing it? Not very far, you reply.

Yet a business operating without a general ledger is a good deal like that army. There is no real line of communication between the business and its commander-in-chief. In other words, the general ledger is the nerve center of a bookkeeping system, and it is the most important book of record in a business.

The term "General ledger," has a somewhat formidable sound to the man who doesn't own one, but there is nothing formidable about its operation. Its operation means little more than a score of postings a day, on an average.

There are four main divisions of accounts in the general ledger of this simplified accounting plan: asset accounts, liability accounts, revenue accounts, and expense accounts.

The asset accounts show the value of everything owned by or owed to the business. They are nine in number—the petty cash account, bank account, accounts receivable, merchandise purchases subdivided into nine divisions, notes receivable, furniture and fixtures, shop equipment and notes receivable discounted.

There are seven liability accounts, which show under the proper divisions everything owed by the business.

There are accounts payable, notes payable, luxury and sales tax accounts showing the capital invested in the business, the surplus account, undivided profits and endorsement liability on discounted notes. The profit and loss accounts also are carried in this section for convenience.

The two other classes of accounts in the general ledger are the revenue accounts, showing the total income of the business, and the expense accounts, showing the total outgo.

The revenue accounts include a sales account, discounts earned, interest received, cost of sales and miscellaneous income. Sales and cost of sales accounts are subdivided into nine divisions as cars, accessories, gas, oil and greases, tires, tubes, parts, shop (labor) and sundries.

Expense accounts, likewise, are a vital factor in profit, for expense subtracted from gross profit leaves net profit. The general ledger expense accounts show the dealer's expenditures for rent; light, heat and power; postage, telephone, and telegraph; interest paid, discounts and allowance given; salaries; taxes and insurance; depreciation, gratis service, general and miscellaneous expense.

Only Three Ways of Increasing Profits

There are only three ways for a dealer to increase profits—by increasing sales volume or turnover, and by cutting expense. It is easy to see how accurate, up-to-the-minute figures on both revenue and expense can be used.

Beyond these functions of the general ledger, the merchant has in these records the ready-made material for his financial statement—the information that any banker or manufacturer de-

MONTHLY BUSINESS STATEMENT									
MONTH OF <i>January 1922</i>									
STATEMENT OF EARNINGS					STATEMENT OF VALUES OWNED AND DEBTS OWED				
NO.	ACCOUNT	ITEMS	TOTAL		NO.	ACCOUNT	ITEMS	TOTAL	
<b>SALES</b>					<b>VALUES OWNED</b>				
20 1	CARS		1,624.00		1	PETTY CASH			
20 2	ACCESSORIES		420.00		2	BANK			
20 3	GAS		720.00		3	ACCOUNTS RECEIVABLE	2,220.00		
20 4	OIL AND GREASE		175.50		4	MERCHANDISE PURCHASES	7,550.00		
20 5	TIRES		325.60		5	NOTES RECEIVABLE	124.00		
20 6	TUBES		174.20		6	FURNITURE AND FIXTURES	1,250.00		
20 7	PARTS		517.40		7	SHOP EQUIPMENT	2,500.00		
20 8	SHOP		1,026.40		8	VEHICLES AND SERVICE EQUIP.	700.00	20,864.50	*
20 9	SUNDRIES		90.00	5,073.10					
<b>COST OF SALES</b>					<b>DEBTS OWED</b>				
21 1	CARS		1,104.50		10	ACCOUNTS PAYABLE	305.00		
21 2	ACCESSORIES		294.00		11	NOTES PAYABLE	312.50		
21 3	GAS		500.00		12	LUXURY TAX	1,790.00	7,953.00	*
21 4	OIL AND GREASE		115.50						
21 5	TIRES		125.60						
21 6	TUBES		117.40						
21 7	PARTS		354.27						
21 8	SHOP		674.80						
21 9	SUNDRIES		70.00	3,553.17					
<b>GROSS PROFIT</b>					<b>NET ASSETS</b>				
<b>EXPENSES AND LOSSES</b>					<b>REPRESENTED BY</b>				
22	SERVICE		172.40		13	CAPITAL ACCOUNT		8,000.00	
23	RENT		135.00		14	SURPLUS			
24	LIGHT, HEAT AND POWER		74.80		15	UNDIVIDED PROFIT			
25	POSTAGE TEL. AND TEL.		51.00		16	UNEMPLOYED DEFICIT			
26	INTEREST AND DISCOUNT		178.20		17	ANNUALS			
27	SALARIES		320.00		18	JANUARY	115.00		
28	TAXES AND INSURANCE		117.20		19	FEBRUARY	265.60		
29	PERMIT EXPENSE AND GRAY		212.00		20	MARCH	437.55		
30	SHOP		178.41		21	APRIL	1,213.20		
31	DEPRECIATION		0.00		22	MAY	1,250.00		
32	MISCELLANEOUS EXPENSE		1.40	1,262.21	23	JUNE	795.78		
<b>NET PROFIT</b>					24	JULY	476.60		
<b>MISCELLANEOUS REVENUE</b>					25	AUGUST	434.50		
33	DISCOUNTS EARNED			457.72	26	SEPTEMBER	457.72		
34	INTEREST RECEIVED				27	OCTOBER			
35	MISCELLANEOUS INCOME				28	NOVEMBER			
36					29	DECEMBER	848.65		
<b>NET INCOME</b>					<b>NET INVESTMENT</b>				

Above is an illustration showing the important monthly figure facts copied from the general ledger. Such a statement shows the automotive dealer or garage man just what departments need "jacking up" and what activities need closer attention. It is the monthly magazine of the business.



mands of him as a basis of credit. The accompanying illustration shows how the figures on the monthly business statement tie up directly with various accounts in the general ledger.

The form shown here will repay close study. Would not any garage man or automotive retailer like to have that information available—with practically no work involved—whenever he wanted it? The business statement is the story of your business reduced to simplest terms.

Yet any dealer who keeps a general ledger under such a plan as described here can get that story when he wants it.

In this and the foregoing articles we have described the operation of four ledgers and the distribution sheet that make up the plan. There is one further step in the process—the compiling of information for the income tax report.

The immediate goal of every man in business is net profit, because a business, to exist, must be operated at a profit.

But what is net profit? It is a total of all sales, minus the cost of all goods sold, minus all expense. Simple to figure—if the merchant has the information from which to figure it.

Now that same net profit which is the goal of every automotive dealer or garage man is of great interest to the government once a year. Your income tax is a tax on the net income derived from your business.

It has been said that the income tax law is making Canada a nation of book-keepers, and the reason is not hard to find. To the man who has let his figure work pile up through the year, income tax time is a time of trouble.

But to the man who has properly classified and recorded transactions as they took place, the filing of an income tax return is simply part of a day's work.

In the preceding article of this series, we showed how the figures necessary for a complete monthly business statement of net profit are obtained, under the accounting plan, direct from the general ledger, in which they appear in their proper classification and posted up to date at all times.

It is this information that is needed for the monthly business statement as shown in the accompanying illustration, and it is this same information that the government asks in an income tax return. The merchant who has kept a proper set of books has it ready at any time; he knows it is correct, and he can prove it if the government asks him to.

#### The Plan Reviewed

The features of the accounting plan can be summarized briefly. They may be classified under three general headings:

1. It gives the automotive retailer or garageman absolute proof of all work. It insures him against loss to himself through error.

2. It gives him a logical classification of all transactions—a picture of his current business operations. It gives him exact knowledge at all times of his total revenue, and its sources and his total expenditures and their sources. He is thus able to figure his exact net profit. He can then cut here, increase there, and so guide his business as to increase that profit.

3. It gives him when he needs it, a perfect picture of the condition of his business as a whole—a monthly business statement of assets, liabilities, and net profit which show his net worth. Such

figures as these are invaluable as an aid to credit, in adjusting fire losses, in the sale of the business or a share in it, and in many other ways.

A great many dealers are able to handle all this work in a few minutes per day. Anyone who can read can operate it.

Automotive men are coming to realize that these are things every dealer needs if he is to do business successfully. And there is no reason why anyone who does realize that fact should go without an adequate bookkeeping system.

The illustration shows a General Ledger (General Ledger, CHAS. S. 10) and a Daily Distribution Sheet (DATE Jan 31, 1922). The General Ledger has columns for DEBIT, CREDIT, and BALANCE. The Daily Distribution Sheet has columns for INVOICES RECEIVED, CASH RECEIVED, SALES, COST OF SALES, and DISCOUNTS. Below the distribution sheet are two invoices: one from CENTRAL GARAGE and one from LOR AUTO SUPPLY CO. Arrows indicate the flow of data from the invoices to the distribution sheet and then to the general ledger.

**General Ledger (CHAS. S. 10)**

DATE	DEBIT	CREDIT	BALANCE
1922			606683
1922			602247
1922			596290
1922			593899
1922			584023
1922			530450

**DAILY DISTRIBUTION SHEET (DATE Jan 31, 1922)**

INVOICES RECEIVED	CASH RECEIVED	SALES	COST OF SALES	DISCOUNTS
00	00	00	00	00
2500	2500	2500	2500	2500
7500	7500	7500	7500	7500
10000	10000	10000	10000	10000
135202	135202	135202	135202	135202
2450	2450	2450	2450	2450
432752	432752	432752	432752	432752
53500	53500	53500	53500	53500
17830	17830	17830	17830	17830
77121	77121	77121	77121	77121

**INVOICE (CENTRAL GARAGE)**

Mr. James L. Wilson Jan. 31, 1922.

345 Jefferson Street, 1724 Tenth Avenue

Phone 100 City.

1 set right rear axle 17.50

6 Hub washers 1.50

1 Pinion Gear 11.00

Total Parts 30.00

10 hrs mechanic's time 12.50

42.50

**INVOICE (LOR AUTO SUPPLY CO.)**

W. R. ROVES

RICHMOND, VA. Jan. 31, 1922.

Warehouse - Brit Line and James Street

100 3-4 Spark Plugs 3/4A .42 42.00

24 Assorted Flat W. Ropes 7.00 172.80

1 Sample Hydrometer .80 .80

8216.60

This illustration shows two general ledger accounts and the daily distribution sheet. It indicates how easily information is compiled on the daily distribution sheet and how the day's totals are posted to the general ledger accounts. With the general ledger in daily balance it is an easy matter to compile a financial statement for your banker, manufacturer, or jobber. It's merely a matter of copying totals.



# The Industry Needs Salesmanship— What Is Being Done About It?

Better Salesmen are Needed to Sell Cars, Trucks and Tractors.

How are we Going to get Them? The Author of this Article

Answers this Question and Suggests How It May Be Done

By G. N. REID  
Manager Gray-Dort Motors,  
Toronto Branch

**T**HE automobile buying public today know more about motor cars and the companies manufacturing them than ever before because they have been educated through advertising, motor magazines and the general use of a car. It therefore behooves an automobile salesman to know whereof he speaks when he endeavors to interest a prospective buyer.

How is the salesman to acquire this necessary knowledge?

Is he going to obtain it by long experience?

Or is it rather to be acquired by a special course in automobile salesmanship conducted by an experienced salesman, and the study of an automobile sales manual pertaining exclusively to the car he sells?

Much time can be saved, more proficient salesmen turned out and fewer sales lost to possible buyers by the latter method.

Distributors of other lines of merchandise would not for a moment think of allowing a new salesman to go out in the territory to represent them without first making him thoroughly familiar with their line of goods, yet how many dealers expect their new men to produce results in an unreasonably short space of time when they have had no preliminary training by the dealer.

## Should Have a Sales Manual

Not only should a salesman be familiar with the mechanical details of the car, but he should be able to answer the thousand and one minor questions which a prospective buyer may ask. For this reason I am a strong believer in the sales manual which should be thoroughly studied by each new salesman and constantly reviewed by the experienced men. This sales manual should contain a Standard Retail Sales Talk, General Questionnaire, and a Permanent House Policy.

The Standard Retail Sales Talk should contain the best selling arguments on the car. Each car has its own special talking points or salient features which should be emphasized by the salesman. These should be embodied in the Standard Retail Sales Talk. The following is a sample of what might be contained therein:—

The strength of the car is best illus-

trated by the width, depth and gauge of the frame; the size, length and quality of the springs; the size and quality of all gears and bearings; the sturdiness of the wheels, efficiency of the brakes, the size of the crankshaft and material and workmanship of the body; in fact, every part of the car is built more strongly than would seem necessary.

## REID SAYS:

Automobile salesmen should be taught what kind of language to use to get a man's attention—his absolute attention, not his relative attention. Something must be said or done by the salesman to compel this absolute attention. To get this type of salesmanship the dealer must make it interesting for the right men, or take what he can get and train them himself.

A great many and varied questions are asked an automobile salesman. Many he will be unable to answer correctly and rather than display his ignorance he will give some ridiculous answer. To avoid this a General Questionnaire has been adopted by some of the leading distributors for the use of their wholesale and retail men. Every man in the organization should know this thoroughly. There are a great many sales lost on the showroom floor by contradictory statements and a careful study of the Questionnaire will help in this direction. One dealer of my acquaintance has a Questionnaire containing over three hundred questions and answers on the car he is handling. Following are a few sample questions which might be embodied in the general questionnaire:—

What is the weight of the crankshaft?

How is the crankshaft balanced?

Of what material are the main bearings made?

What is the length, width and depth of the chassis frame?

What is the difference between a  $\frac{3}{4}$  and a full floating axle?

How many square inches of braking surface is there on each brake?

The introduction to the general questionnaire should contain a brief history of the company since its inception, so that the salesman will not only be familiar with the product, but also with the character of the company behind it.

Permanent House Policy should be contained in the Sales Manual, not only for the benefit of new salesmen, but as a time saver for the retail sales manager. Each institution has its own set of rules and regulations and if they were embodied in printed or typewritten form it would be of considerable advantage both to the house and the salesman.

These rules and regulations govern the salesmen's dealings with the house and with the customer. A Permanent House Policy establishes rules which should be followed by all the salesmen, it eliminates burdensome instructions and fixes responsibility for various duties. It should contain detailed explanations of protection on prospects, instructions or demonstrators, appraising used cars, commissions—when payable—use of telephones, smoking, etc.

## Are Salesmen Trying to Sell?

It should be impressed upon a salesman that next to the purchase of a man's home, in many cases the most important purchase a man makes is an automobile. Many families will save for a number of years to possess an automobile, for deep down in the heart of every normal man, woman and child, is a strong desire to possess and own an automobile. It is about as strong as any desire they have. There are many men and women in this city denying themselves many things in order that they may possess a car. Next comes the step where they are ready to buy and they decide to call at several different sales rooms to look over the various models, obtain the prices, and any other information the salesman will impart.

Here is what actually happened in



one place as told to the writer by the prospect himself:

"We walked into the showroom and waited there for probably ten minutes before we were shown any attention. Finally a young man stepped up and I told him I was desirous of looking at the touring car. His first question was, 'Have you a car to trade?' I answered, 'We can discuss that later, I want to look at your touring car.' He persisted, however—'The reason I mention the trade,' he stated, 'is because we are not taking in any cars at present and I thought it would save time to tell you that now.' Still nothing had been said by him about the new touring car which I came down town to look over.

"You know," he said "the trade-in proposition is one that has caused us considerable worry lately so we decided to shut off entirely on the used cars." By this time I decided I did not want to look at his new touring car and we left that sales room. I never told him I did not have a car to trade.

"The next place I visited I received immediate attention, the salesman came

to meet me at the door, was very courteous and answered my simple questions in a very polite manner. I was favorably impressed with his car and he intimated that he would like to arrange a demonstration for some evening next week. No definite time was set for the ride. He said nothing to me about buying immediately, but took my name and address upon leaving. I might have bought right on the spot without a demonstration, or why could the demonstration not have been given then and there?

"From these two places I visited I gained the impression that the cars on display were all they had in stock, consequently they hated to part with them. I learned later, however, that both these dealers were stocked up with cars for immediate delivery."

#### Necessity for Specialized Training

The foregoing experience of this prospective buyer merely goes to show the necessity of some kind of specialized training for automobile salesmen. They should be taught what kind of language to use to get a man's attention—

I mean to get a prospect's **absolute** attention, not his **relative** attention. A prospect may listen to what a salesman is saying, but the prospect's mind is one hundred miles away; that is **relative** attention. Something must be said or done by the salesman to acquire his **favorable** attention and from that point it is only a short step to getting his **absolute** attention, which is essential for closing purposes. And right there is where most of them are weak, very weak.

There are probably in each of our larger cities over two hundred men engaged in the retail selling of automobiles. Of this number I venture to say there are not more than ten high-grade salesmen. Almost any dealer merchandising automobiles will agree with me. Yet what is being done about it?

The dealer must do something at once to make it interesting for the right type of salesmen to engage in this line of business, or they must take what they can get and endeavor to train them along the lines suggested.

# Something New In Tractor Selling

Story of a Dealer Who Sold Himself on the Tractor he was Handling and at the Same Time Sold his Prospects and Made Some Money in the Process

**T**HE following story tells of how a tractor dealer sold himself on his product and at the same time sold his prospects and made some money in the process.

The dealer in question, who is handling Case tractors, took a tractor out of stock and put it to work, determined to see what could be accomplished with a tractor. He did this for two reasons:

First: To convince himself that a tractor of the right kind is a paying proposition.

Second: If it was, how could he advertise better than to have one of his own out working so that he could get first hand figures to show his customers what a tractor can do under actual working conditions?

The firm kept very efficient and accurate cost records, so that at the end of the season they knew to a penny the exact earnings of the outfit.

They figured up their total investment for the complete outfit which amounted to over twenty-two hundred dollars. This constituted a Case 15-27 tractor, steering device, three-bottom plow, three breaker bottoms, three log chains, one bunk house, sod roller, tank and wagon for tank and freight on all this machinery.

With this outfit they did five jobs of breaking, for which they collected \$2,070.00.

They next took up stubble plowing and summer fallowing, doing eleven different jobs, with a total of 773 acres. The charge for this work was at the rate of from three to three and a half dollars per acre. The total earnings from this amounted to \$2,420.25.

The total expense of the sod breaking job was \$853.97. Of this amount \$269.87 was for kerosene, gasoline and lubricants, and \$157.50 for labor. The balance of the expense was made up of incidentals such as extra spark plugs, valve grinding compound and six extra breaker lays to complete the outfit. In doing the sod breaking work 1,030 gallons of kerosene at \$.206 per gallon was used, as well as 65 gallons of gasoline at \$.31 per gallon. It required 47 gallons of motor oil and 4½ gallons of gear oil.

#### What the Figures Showed

The carefully kept records show that the total expense of the stubble plowing and summer fallowing amounted to \$2,263.68. Of this amount \$504.31 was for kerosene, gasoline and lubricants and \$773.00 was for labor. The total earn-

ings on this outfit from all this work was \$4,490.25. The entire cost of operating the outfit was \$2,263.68, so that the net profits amounted to \$2,226.57. In doing this work the tractor traveled nearly 4,000 miles.

Think of it, an outfit more than paying for itself by custom plowing in one season—an outfit good for several seasons of the same kind of work.

Aside from the profits of the work actually accomplished, the firm reaped much larger profits from increased sales brought about by the fact that they could at all times take their prospects out to see one of their tractors at work—a practical demonstration going on at all times. Another point of very great advantage gained from this experiment, was the set of cost figures developed. With these figures at hand they were ready at all times to answer questions of cost immediately. How many dealers are there that can tell you right to a cent what it costs an acre to plow or break? One can readily see the great advantage to a dealer to have an accurate and authentic source of information at hand and to be able to know what a tractor can actually do. This is the best kind of material with which to clinch a sale and get the name on the dotted line.



# Farmers Will Buy Trucks — But They Have To Be Sold

Trucks Will Not Sell Themselves—Some Salesman Must do it.  
Selling Farmers is not Easy at any Time but They are Live Truck  
Prospects. Personal Solicitation Necessary

I DON'T want to discourage motor truck dealers; neither do I want to falsely encourage them. But I do want to point out that farming is one of the most diversified of our industries—that there is no other industry in the world where the operations in a small way so closely resemble operations on a big scale—and that the farmer at no stage is an easy man to sell anything to, says a truck salesman in an article in *Motor World*, an American publication.

I want to meet this situation right on the nose; better that we face the facts as they exist on the farms than the theories as they appear at the end of some desk-hound's pencil. If we don't analyze this situation, truck dealers will waste a lot of time, energy, gasoline and postage on certain farmers and they'll never get it back.

It must be remembered in the first place that hard as it is to do it, trucks can (never should) be sold to people who cannot use them profitably. Good salesmanship will do it—that is if you want to concede salesmanship good that exaggerates. Furthermore, not every farmer who bought a truck between 1917 and 1920 did so to his entire advantage.

I have no doubt but what every farmer would like a truck—like it the same way his wife hopes some day to have an extra set of dishes for best—but whether every farmer can use a motor truck in addition to the horses that he must maintain, and pay for that truck out of savings or additional earnings is another matter.

A great many farmers bought trucks during abnormal times merely as a farm luxury. They had the extra money to spend. The farmer got his truck and mother got her extra set of dishes.

A farmer operating a small farm is not a good prospect for a motor truck unless it is a dairy or fruit farm or a truck garden—a frank statement but a fact. No use fooling ourselves; it costs too much to sell goods to-day to waste our ammunition. Except in abnormal times there is no big money to be made on a small farm.

## Personal Solicitation

Therefore truck dealers will do well to canvass their territory and make a good personal survey of the situation

The profit on one sale will pay for it and there is at least one farmer who needs a truck and can make it pay for itself. There are very few dealers, if any, who have territories where there is no farmer who needs or can use a truck profitably.

What I am pleading for and working toward is the necessity of personal solicitation. The farm business is too varied and there are too many farmers who can get along without a truck to make an expensive mailing campaign pay. On the other hand there are enough prospects to make putting a man out with a demonstrator pay. You cannot get along without some direct-by-

turned to the conditions that prevailed between 1917 and 1920 we would have to go back to our original methods.

I am afraid that so much has been heralded about every farm needing a truck that when the farmer does get squared away financially the truck dealers expecting a flock of orders to enter themselves will be caught napping.

Remember thousands of farmers are not sold on the truck idea at all and no amount of printed matter will sell them, but in hundreds of cases personal solicitation will.

Selling farmers has never been easy even in the most prosperous times so when they get back in the market don't hope for too easy sledding.

In a number of cases you will be doing the farmer a good turn if you don't sell him a truck, but in a great many other cases you are not only doing the farmer a good turn to induce him to buy but are also rendering the whole community a good service.

Vendors of time and labor saving devices have a great obligation to perform—a great duty they owe to humanity. Any dealer who is fortunate enough to be handling a good truck is only doing his part to hold back civilization if he does not push it.

To us gasoline is only one of the many commodities. We buy it without ever thinking that the distribution involved a lot of pioneer work and that the big organizations who now handle the bulk of this business got where they are to-day by going after the business when gasoline had to be sold instead of measured out to buyers as they stand in line.

The first cash registers were not shipped on the frantic request of storekeepers who felt the pressing need for some place to put their money.

Nearly every large business concern uses cash registers, adding machines, typewriters and letter printing machines, but you can gamble your last dollar that the first of them was sold by the ingenuity, the persuasiveness and persistence of some good salesman instead of leaving it up to the postman. The rural mail carrier is not selling the farmer much merchandise nowadays.

The fact I am driving home is that the pioneer work of motorizing farms

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The problem of the truck salesman is to show the farmer that the truck he is selling will not only haul crops to market faster than horses, but also to show him that the truck he is selling represents transportation expressed in ton miles per hour or bushels of wheat per given distance per day.

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mail effort but you can't rely upon it solely.

Any two grocery stores are more nearly alike than two farms, so personal knowledge of your prospect's requirement is more necessary in selling farmers than in selling merchants, and you can't get this knowledge mailing him circular letters.

You have to get right out on the road and show the farmer.

Of all the people you sell trucks to, he has more mechanical knowledge than any of them. He knows construction. You know it to be a fact that a good farmer boy around a garage is handier than a factory mechanic. Why? Because to repair machinery is born in him.

So don't scatter your shot on farmers. CONCENTRATE. SOLICIT AND DEMONSTRATE.

Trucks will not sell themselves—some salesman must do it.

Even if farmers were suddenly re-



is far from being completed. Selling motor trucks to the farmer who specializes in raising hogs differs as much from selling trucks to the dairy farmer, or the truck gardener, or to the ranch man who wants to haul coal and fence posts to a ranch 40 miles from a railroad, as selling jewelry differs from selling white flannel pants.

### Selling on the Ground

The only way to sell trucks is to get right on the ground where they are to be used. And the real truck salesman is the fellow who can drive and demonstrate and who is willing to put on a pair of overalls and haul a cow to town or help bring in a load of produce before sunrise. He must demonstrate that the truck will haul more bushels of oats between the threshing machine and the elevator than three teams can haul in the same time.

The reason why a farmer doesn't buy a truck is either because he hasn't the money or that he is not sure it will pay. There are hundreds of farms that a truck salesman should know instantly are not cut out for motor trucks. Instead of wasting his time and energy and the boss' money he should pass them right up and concentrate on the farmer who actually needs a truck.

It's a truck salesman's duty to show a farmer where the truck will save or make him money; but it is a crime to induce one who cannot use the truck profitably to buy it.

A dealer who has sold hundreds of trucks to farmers and knows what he is talking about because he has the profits in the bank to back up his statement recently gave me his slant on farm sales.

The problem of the truck salesman is to show his customer that the truck he is selling will not only haul his crops to market faster than his horses, but also to show him that the truck he is selling represents transportation expressed in ton miles per hour or bushels of wheat per given distance per day. This is what he told me:

"As a wholesale distributor of trucks over a large territory it has always been our desire to market these trucks through local dealers. Our difficulty has been to get these dealers to recognize the potential demand. If a customer comes in and wants to buy a truck they recognize that fact without having it diagrammed, but the less obvious, although equally certain, fact is that there are fifty fellows in their territory who would make money by owning trucks who do not, that could be sold if their utility were demonstrated.

"This is much more difficult to bring to the comprehension of the dealer, and for this reason we have set out to do what the average retail dealer is not willing to do.

"We have employed regular truck salesmen who sell nothing but trucks. They go out with a truck and systematically cover the territory from farm

to farm and it has proved to us that we have only started to develop the possibility of the farm business.

"Our farm sales have not been up to the standard the last two years, but we have it in black and white who the farmers are that should get a truck when they have the money to buy, and which farmers not to bother because they do not need a truck at any price.

"When I say 'need' I mean have enough work to keep it busy a reasonable length of time; or in other words keep it busy enough every day so that its earnings will amount to more than the depreciation."

### The Big Opportunity

Truck sales follow road improvements and just as railroads open up new territory and create commerce so do improv-

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The farmer knows his costs better to-day than ever before; he is a comprehensive buyer. He knows now, where he guessed before, what it costs to run machinery. The truck dealer must be careful how he talks to him and must not talk crops unless he, the dealer, understands farming. The farmers are beginning to study whether they need trucks or not and 1923 is going to be a big farm truck year.

Survey your territory now, sort out your prospects and call on the logical buyers personally.

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ed roads. Good roads go hand in hand with consolidated schools which are big truck consumers. After roads are built they must be kept up.

The farmer has been putting it off and putting it off for so long that it is second nature. Country dealers and city distributors should be making preparation from now on to get this delayed business.

If the dealer in a farm community will connect to the right kind of a truck line and will go out among his customers and show them how many bushels of wheat or how much hogs or how many tons of coal can be hauled a given number of miles in a certain time, he can secure big results, and he can build up a business more profitable and more permanent than the passenger car business.

"If any distributor who has a lot of dealers who cannot see this until they are shown will put a little nerve and a little intelligence into his merchandising system, and if he will spend a little money working up a truck business, he will show wonderful results," says my friend.

A distributor owes this education to the local dealer in the same way the dealer owes it to the farmer to teach him the truck idea. A distributor more often than not makes as much on a retail sale as the salesman who closes the deal. If distributors expect to hold their territory they must expect to do something to earn this margin.

It is impossible to build up a business with a poor truck because the expense of pioneering is too high and it requires a high grade truck turned out by reputable manufacturers to get the repeat orders.

Don't try to build a farm truck business with a poor truck, but if you want to make some real clean profit find a truck and get set for the farm business that is coming.

Signs point that 1923 is going to be the best year of the '20s.

To bring the truck and the farmer together requires high grade salesmanship under intelligent supervision—salesmen who are not afraid to work and bosses who can make the other fellow do the work.

It takes country dealers to sell farmers because they are closer to them, but a great many country dealers are like the small town railway station agent. He is the baggageman, operator, mailman, freight agent, express man and janitor, and the country dealer should either get in or get out of the automobile business.

He should either get in or get out of the repair business. He can't repair cars, mend tires, keep books, sell gasoline and handle sales. He hasn't enough eyes, hours or hands.

### Good Salesmen

The sooner country dealers learn to hire and supervise men the quicker they will get results. They must not hesitate to let a salesman earn \$3,000 or up in a year. It looks like a lot of money, but just see how much he is making for the boss.

Too many country dealers in hiring salesmen think they should engage a man who knows every Tom, Dick and Harry in the country. He is not always the best man. Usually this kind of man pre-judges the prospect. Get an outsider and put him to work. He will look at the territory in a new light. Poor salesmen are the most expensive. A good truck salesman can sell a farmer a truck if he needs it and will refuse to sell him if he doesn't need it.

The farmers are beginning to realize whether they need trucks or not and 1923 is going to be a big farm truck year.

A farmer working a hundred acres uses a side delivery rake that costs him nearly a hundred dollars and which he is only able to use about three days. If he raises a crop of beans he can use it two or three days more and if he lives in the alfalfa section and raises three crops he can use it nearly



a dozen days more. He pays approximately \$300 for a self binder and uses it four or five days. His cultivator will cost him around \$50 and he will use it less than 5 per cent. of the time.

He will use a motor truck probably every day in the year. In fact it is not too much to say that the motor truck is the most used piece of machinery on the farm and for the use he gets

out of it, it costs him less per hour the first year than any of his implements.

The farmer knows his costs better today than ever before; he is a comprehensive buyer.

#### Farmer Better Informed

Since he, like the manufacturer, has been assessed with an income tax he

has been obliged to put farming on a cost sheet basis.

He knows now, where he guessed before, what it costs to run machinery.

Be careful how you talk to him and above all don't talk crops unless you understand farming.

Survey your territory, sort out your prospects and call on the logical buyers personally.

## Can Dealer Collect If He Does Work Not Ordered?

Where Repairman Discovers Needed Repairs Other Than Those  
For Which the Car Was Turned in, His Safe Course is to Refer  
the Matter to the Owner for His Consent to the Extra Work

**I**T OFTEN happens that when a customer turns in his car to a repair man with orders to make certain repairs, the latter, on going over the car, finds that other work besides that specifically ordered is needed. Suppose the repair man goes ahead and does this work without referring the matter to the car owner—can he legally enforce payment for it? Unfortunately for him, no—if the car owner is unwilling to pay for the work done but not ordered, he cannot be forced to pay for it. In every such case where the repair man discovers, on examination of the car, necessary repairs other than those for which the car was turned in, his only safe course is to refer the matter to the car owner and get his consent to having such extra work done.

Of course, if the owner brings in his car with some general direction as "go ahead and fix her up," he is in effect giving the repair man carte blanche to make all repairs and adjustments which are needed on the car. The repair man can collect for all his work, provided that he can show that everything he has done has been necessary and vital to the good repair of the car. If the bill should be disputed in court, the repair man may have to prove by expert witnesses that his work was of that nature.

#### Verbal Contract Binding If Proven

It must be remembered that a verbal contract for repairs, etc., is just as binding as a written contract—providing that it can be proved. But a verbal contract is almost invariably difficult to prove—very often it devolves simply to the word of one party against that of others. Therefore it would be always wise for the repair man to have his contract for repairs reduced to writing.

A regular job order form should be used, giving all details about repairs to be done, owner's name, etc. A simple form like the following could be added to the job order and would protect the dealer against any possible misunderstanding:

By **H. C. MYERS**  
Barrister at Law

"I hereby authorize the Jones Garage  
to do the following work on my car:

.....  
.....  
Date—

Signed

Car Owner."

The dealer should make certain that orders for repairs to, or supplies for a car are given by persons who have the authority so to do. The infant son of a car owner—and in the eyes of the law, children under twenty-one years are infants—may bring in his father's car, and other repairs to be made. Unless his parent has given the son authority to give such orders the father is not bound to pay, and the repair man cannot collect. The repair man therefore at all times should get the express authority of the owner before proceeding to do repairs.

With the work done set out on this card, and the car owner's signature to it, there will be no difficulty in collecting the bill, and no possibility of dispute as to work ordered. As the job proceeds if the dealer discovers something that should be put right not mentioned in the original order, the owner should be notified. If he sanctions the work a supplementary form can be made out specifying the extra work and should be signed by the car owner.

The garage man should also make certain that orders for repairs to, or supplies for a car are given by persons

who have the authority so to do. The infant son of a car owner—and in the eyes of the law, children under twenty-one years of age are infants—may bring in his father's car, and order repairs to be made. Unless his parent has given the son authority to give such orders, the father is not bound to pay, and the repair man cannot collect. By authority in this case, is meant either express authority, or implied authority. That is to say, if it has been the custom for the son to order repairs to the car, and the parent has always paid the bills; then the latter has given the son implied authority to order, and will be bound to pay in every case, unless he informs the repair man that this authority has been withdrawn.

A recent American case is directly on this point. A car that had been damaged by a collision was brought into a garage for repairs, by the brother of the car owner, both of whom were known to the repair man. The repairs were made and the car taken out again by the brother. When the bill was rendered to the owner he refused to pay, claiming that the car had been taken out by his brother without authority, while he himself was away. The repair man was unable to collect from the car owner. He of course had an action against the brother for the amount of the bill, but unfortunately the latter was worth nothing.

In the case of a chauffeur ordering supplies or repairs for his employer's car, much will depend upon the custom of dealing between the supply man and the owner. Where the chauffeur has been in the habit of ordering whatever is necessary for the car, this custom would broaden the authority of the chauffeur, and the repair man would be safe in acting on his orders for necessary repairs and supplies. But he would certainly not be wise in acting solely on the chauffeur's orders for any big repairs for the car—such as repainting. In such cases he should get the express authority of the owner.



# Don't Wait Until You've Mastered Radio Before Getting the Profits

Some Dealers Hesitate to Enter the Radio Business Because of Their Scanty Knowledge of the Equipment. It is Not Necessary to be an Expert Radiotrician to Sell Radio Sets This Winter

**A** FASCINATING mystery, an ever-ready entertainer, a practical method of listening in to the current events of the world. This is how radio appeals to the average citizen. Radio is one of the greatest means of communication and can be compared with the telephone, telegraph and newspapers.

The merchandising of radio apparatus is much the same as with any other manufactured product. There is a potential market for every meritorious article, but the market must be sought out and developed.

We find in business life that the world is made up of men of many minds, an article that suits one, will not satisfy another, although the needs or requirements of both be the same. Therefore, there must be manufactured several types of apparatus, to accomplish the same result.

Perhaps our thought is best illustrated by the automobile business. Here we find cars varying in price from a few hundred to several thousand dollars. They also vary in size and appointments. While the result sought for is transportation, the means of securing the result does not appeal to all alike.

The different types are most commonly known as the crystal set, the single tube or short wave regenerative set, and the two or three stage amplifier set.

A great many automobile dealers hesitate to enter the radio business because of their scanty knowledge of the equipment. This impression should be corrected at once, because it is by no means necessary to be an expert radiotrician to sell or even install radio outfits.

Just a few simple thoughts are well to remember:

It is not essential to erect a very elaborate aerial, good results are being obtained by using a single wire, some 75 to 150 feet long, stretched between two trees, or buildings, as high as possible from the ground. This wire, of course, must not be allowed to touch any surrounding object and should have an insulator at each end; it may be brought into the house through an ordinary porcelain tube in the window

By RUDOLPH WEESE

Associate Institute of Radio Engineers

frame, or through a hole drilled in the glass.

A good ground connection is necessary for the set. Water pipes make the best possible, but steam radiators, a copper plate, a large spike driven into the ground, are also very often used.

their messages on different wave lengths, it is necessary that the receiving set be equipped with some means of tuning or bringing the receiving apparatus into tune or resonance with the sending station. If the note "middle C" is struck on the piano, it vibrates 256 times per second. Another string placed near by tuned to the same pitch, or exactly the same length would also pick up this vibration. The same action takes place in tuning a radio set. Tuning is accomplished by changing



A large number of automobile and accessory dealers are going to increase their winter business this year by selling radio sets. No special knowledge other than what the dealer already has is necessary.

A crystal set will not operate over a greater distance than 15 or 20 miles, from a broadcasting station, and will not operate a loud speaker. These points should be borne in mind when selling outfits.

As reception is very much better during the winter months, most of the American stations can be heard on one tube, but these signals can be amplified greatly by adding one or more bulbs, although it is not practical to use more than two stages of amplification.

By using a loud speaker, such as the Magnavox, the concerts may be enjoyed by all, in fact many moving picture shows, and hotels have already installed outfits for the entertainment of their patrons.

As the transmitting stations send out

the inductance, or length of the coil in the aerial circuit, or by changing the capacity by means of a variable condenser. This latter is usually made up of a number of semi-circular plates interleaving with one another but not allowed to touch.

The receiving and vacuum tube is perhaps the most important part of any radio set for without it radio would hardly be possible, and it is used in both the transmitting outfits. The purpose of this vacuum tube is to rectify or make audible and intelligible the minute currents collected by the aerial. These tubes require a storage battery, to light the filament or high voltage dry. The filament current is controlled by a small rheostat which adjusts them to the correct brilliancy.

(Continued on Page 29)



# New Chevrolet Model Has Many Changes

**A**NNOUNCEMENT is made of a new Chevrolet model known as Superior to supersede the Model F. B. A number of changes both in the mechanical details and in appearance have been made. The outstanding changes are in the design of the bodies, hoods and fenders. The radiator is much higher and of greater capacity. It is 4 3/4 in. higher than before but is narrowed 1 3/4 in. The shell has been changed so that the top corners are more square. The hood is higher and the curve has been taken out of the cowl giving practically a straight line from the radiator to the windshield. The fenders are of the crowned paneled type and the shape has been changed to conform to the new body lines.

The new headlights are of the drum type and are now fastened directly to the fenders. The windshield has been given a greater angle. The lower glass of the windshield on the open model pivots at a point more nearly the centre of the glass than in the previous models which pivoted near the top. All closed models are equipped with sun visors of black metal.

The instrument board is now finished in enamel instead of the dull finish that was previously used. The wood backing to the instrument board has been eliminated. The rear appearance of the car is considerably different. The two small oval windows used in the open models have been changed to a single oblong plate glass window. The change from the gravity to vacuum fuel feed system has placed the gasoline tank at the rear on all models. Previously only the sedan was so arranged.

A number of important changes have been made throughout the chassis. The frame is made much stronger to prevent weaving. The channels are of heavier section and the cross braces are also heavier. Both front and rear springs have been entirely re-designed—the method of fastening to the chassis being by means of a pocket anchor. The angle of the springs has been changed to take road shocks more nearly in the centre line of the spring. The number of leaves has been increased and the leaves themselves are larger. The springs are still quarter elliptic but are now single curved downward instead of double curved, necessitating more clearance between body and axle which has been provided for by raising the rear of the car.

The steering gear is now of the worm and screw type instead of spur gear type used on the older models. The gearset has been changed slightly. The position of the emergency brake lever has been changed from the side to the back of the gear-shift-over, thus giving considerably more room for the passenger in the driver's seat. The latch on the emergency brake lever is now of the spring and handle type instead of the

button type. The gearshift lever has been moved forward 6 in. and is bent so that driver's hand will not touch the dash.

A CG vacuum fuel feed is used on all Superior models except the sedan, which retains the Stewart vacuum system.

The only change that is made in the engine itself is the increase in weight

of the flywheel to make a smoother running engine. A Holley carburetor will be used on part of the line and Zenith, which was used before, will be fitted to the balance. This is done to provide two sources of supply for increased production. The same practice is followed in the ignition, which is either Remy or Auto-Lite.



## Willys-Knight Adds Seven-Passenger Phaeton

**T**HE NEW seven-passenger Willys-Knight model 27 resembles very closely the five-passenger model. It is low swung on long flexible springs; there is a wide and roomy comfort in the tonneau. The two auxiliary seats fold up out of sight under the curtain flap of their compartment in the rear of the driving seats. When occupied there is plenty of knee and leg room. The wheelbase of the seven-passenger is six inches longer. The sedan is up-

holstered in tan mohair velvet over soft cushions. The wide cushions, comfortable auxiliary seats, arm rests, lights to illuminate the steps and etched dome light are features of the sedan. Excepting for the extra seats in the tonneau, the general layout and units are identical with the five-passenger car. The rear quarter window in the sedan is very wide and there are four doors, the rear ones opening forward and the front ones opening to the rear.

### FORD AGAIN REDUCED

Ford Motor Co. of Canada, Ltd., followed the price cut of the United States company with a reduction ranging from \$50 to \$85. The phaeton is \$445, roadster \$405, coupe \$695, and sedan \$785. There is a price differential of \$85 for self-starter and demountable rim equipment. The truck is \$495 and chassis \$345. The new prices are the lowest the Canadian car ever sold for.

### PRESIDENT OF BIRMINGHAM MOTORS DIES

Byron Lederer, president of the Birmingham Motors, Ltd., Peterboro, died suddenly in the King Edward hotel, Toronto, on October 23. Death was due to heart failure.

Lederer, whose home was in Brooklyn, N.Y., had taken a bath, and he was just leaving the bathroom when he col-

lapsed on the floor. A doctor was called, but the application of restoratives was of no avail and he expired almost immediately.

### DON'T WAIT UNTIL YOU'VE MASTERED RADIO

(Continued from Page 28)

Generally speaking the operation of a set is as follows: adjust the coils to approximately the correct wave length, as shown on the chart that accompanies all high-class outfits. By tuning the condenser in or out a shrill whistle will be heard, if any station within range is transmitting. This is known as a carrier wave, which means that the receiving set is a little out of tune. By careful adjustment of the coils, condenser and rheostats this whistle is brought to the lowest tone and when it disappears entirely the set is perfectly in tune.



# Specifications of Current Passenger Cars

Except where indicated the prices

NAME AND MODEL	Wheel-base	Engine Make	Cylinders Bore and Stroke	Radiator	Lubrication	Carburetor	Starting and Lighting	Ignition	Battery	Brake-lining
Cadillac..... 61	132	Own.....	8-3 1/2x5 1/2	Own.....	Force Feed	Own.....	Delco.....	Delco.....	Exide.....	Raybestos & Thermoid
Chalmers..... 35-C	117	Own.....	6-3 1/2x4 1/2	.....	Cir. Splash	Stromberg	Auto-Lite	Remy.....	Prest-o-Lite	.....
Chalmers..... 35-C	122	Own.....	6-3 1/2x4 1/2	.....	Cir. Splash	Stromberg	Auto-Lite	Remy.....	Prest-o-Lite	.....
Chandler..... Six	123	Own.....	6-3 1/2x5	Cellular	Cir. Splash	Rayfield.....	Bosch.....	Bosch.....	.....	.....
Chevrolet..... Superior	102	Own.....	4-3 11/16 x4	.....	Cir. Splash	Zenith.....	Auto-Lite	Remy.....	Willard.....	.....
Cleveland..... 41	112	Own.....	6-3 1/16x4 1/2	.....	Cir. Splash	Stromberg	Bosch.....	Bosch.....	Prest-o-Lite	.....
Cole..... 890	127 1/2	Northway	8-3 1/2x4 1/2	McCord	Cir. Splash	Johnson.....	Delco.....	Delco.....	Willard.....	Thermoid.....
Columbia..... Elite	115	Cont.....	6-3 1/2x4 1/2	.....	Cir. Splash	Stromberg	Auto-Lite	A. K.....	Prest-o-Lite	.....
Columbia..... Light Six	115	Cont.....	6-3 1/2x4 1/2	.....	Cir. Splash	Stromberg	Auto-Lite	A. K.....	Prest-o-Lite	.....
Dodge Brothers.....	114	Own.....	4-3 1/2x4 1/2	McCord	Cir. Splash	Stewart.....	North East	North East	Willard.....	.....
Durant..... A22	109	Cont.....	4-3 1/2x4 1/2	.....	Cir. Splash	Tillotson.....	Auto-Lite	Auto-Lite	U. S. L.....	.....
Durant..... B22	123 1/2	Ansted.....	6-3 1/2x4 1/2	.....	Force Feed	Rayfield.....	Auto-Lite	Auto-Lite	U. S. L.....	.....
Davis..... 71	114	Cont.....	6-3 1/2x4 1/2	.....	.....	Stromberg	Delco.....	Delco.....	.....	.....
Davis..... 61-67	120	Cont.....	6-3 1/2x4 1/2	.....	.....	Stromberg	Delco.....	Delco.....	.....	.....
Earl..... 40	112	Own.....	4-3 7/16x5 1/4	Sparton	Cir. Splash	See.....	Auto-Lite	Connecticut	U. S. L.....	.....
Essex.....	108 1/2	Own.....	4-3 1/2x5	.....	Cir. Splash	Own.....	Bosch.....	Bosch.....	Exide.....	.....
Ford..... T	100	Own.....	4-3 1/2x4	.....	Cir. Splash	Holley.....	Own.....	Own.....	Exide.....	.....
Franklin..... 10	115	Own.....	6-3 1/2x4	.....	Pressure	Own.....	North East	A. K.....	Willard.....	Thermoid
Gardner..... T-R & G	112	Lycoming.....	4-3 1/2x5	Fedders	Splash.....	Carter.....	West.....	West.....	Willard.....	Testbestos
Gray-Dort..... 19-14	108	D-Ly.....	4-3 1/2x5	.....	Cir. Splash	Carter.....	Bosch.....	Connecticut	Hart.....	.....
Haynes..... 75	132	Own.....	6-3 1/2x5	Fedders	Pressure	Stromberg	Leech-Neville	Kingston.....	Willard.....	Testbestos
Haynes..... 55	121	Own.....	6-3 1/2x5	Fedders	Cir. Splash	Rayfield.....	Leech-Neville	Kingston.....	Willard.....	Testbestos
Hudson..... Super-Six	126	Own.....	6-3 1/2x5	.....	Cir. Splash	Own.....	Bosch.....	Bosch.....	Exide.....	.....
Hupmobile..... Series R	112	Own.....	4-3 1/2x5 1/2	McCord	Force Feed	Stromberg	West.....	A. K.....	Willard.....	.....
Jewett..... Six	112	Own.....	6-3 1/2x5	.....	.....	.....	.....	.....	.....	.....
Lexington..... 23	123	Ansted.....	6-3 1/2x4 1/2	.....	Force Feed	Rayfield.....	G. & D.....	Connecticut	Willard.....	.....
Liberty..... 10D	117	Own.....	6-3 1/2x5	.....	Force Feed	Stromberg	Wagner.....	Wagner.....	Prest-o-Lite	.....
Lincoln.....	136	Own.....	8-3 1/2x5	McCord	Force Feed	Stromberg	Delco.....	Delco.....	Exide.....	Raybestos
Marmon..... 34	136	Own.....	6-3 1/2x5 1/2	Own.....	Force Feed	Stromberg	Delco.....	Delco.....	Willard.....	.....
Maxwell.....	109	Own.....	4-3 1/2x4 1/2	.....	Cir. Splash	Eagle.....	Auto-Lite	Simms.....	Prest-o-Lite	Raybestos
Moon..... 6-40	115	Cont.....	6-3 1/2x4 1/2	Fedders	Force Feed	Rayfield.....	Delco.....	Delco.....	Exide.....	Raybestos
Moon..... 6-58	128	Cont.....	6-3 1/2x5 1/2	.....	Force Feed	Rayfield.....	Delco.....	Delco.....	Exide.....	.....
McLaughlin..... 1923-34-35-36-37-38	109	Own.....	4-3 1/2x4 1/2	.....	Cir. Splash	Marvel.....	Delco.....	Delco.....	Exide.....	.....
McLaughlin..... 1923-41-44-45-47	118	Own.....	6-3 1/2x4 1/2	.....	Cir. Splash	Marvel.....	Delco.....	Delco.....	Exide.....	.....
McLaughlin..... 1923-48-49-50-54-59	124	Own.....	6-3 1/2x4 1/2	.....	Cir. Splash	Marvel.....	Delco.....	Delco.....	Exide.....	.....
Nash..... 691-96-97	121	Own.....	6-3 1/2x5	Long	Spl. & F. feed	Marvel.....	.....	Delco.....	Willard.....	.....
Nash..... 692-94-99	127	Own.....	6-3 1/2x5	.....	.....	Marvel.....	.....	.....	.....	.....
Nash Four.....	112	Own.....	4-3 1/2x5	.....	Pressure	Schebler.....	.....	.....	.....	.....
Oakland..... 6-44	115	Own.....	6-2 13/16x4 3/4	.....	Pressure	Marvel.....	Remy.....	Remy.....	.....	.....
Oldsmobile..... 43-A	115	Own.....	4-3 11/16x5 1/4	.....	Force Feed	Zenith.....	Auto-Lite	Remy.....	Willard.....	.....
Oldsmobile..... 47	115	Own.....	8-2 1/2x4 1/2	.....	Force Feed	Johnson.....	Delco.....	Delco.....	Willard.....	.....
Overland..... 4	100	Own.....	4-3 1/2x4	.....	Cir. Splash	Tillotson.....	Auto-Lite	Connecticut	Prest-o-Lite	.....
Packard..... Single Six	126	Own.....	6-3 1/2x5	.....	Force Feed	Own.....	A. K.....	Delco.....	Willard.....	.....
Packard..... Single Six	133	Own.....	6-3 1/2x5	.....	Force Feed	Own.....	A. K.....	Delco.....	Willard.....	.....
Packard..... Twin Six	136	Own.....	12-3x5	.....	Force Feed	Own.....	Bijur.....	Delco.....	Willard.....	.....
Parker.....	127	Cont.....	6-3 1/2x5 1/4	.....	Force Feed	Stromberg	Delco.....	Delco.....	.....	.....
Paige..... 6-44	119	Own.....	6-3 1/2x5	.....	Cir. Splash	Stromberg	Remy.....	A. K.....	Willard.....	.....
Paige..... 6-66	131	Cont.....	6-3 1/2x5	.....	Force Feed	Rayfield.....	Remy.....	A. K.....	Willard.....	Multibestos
Pierce Arrow.....	138	Own.....	6-4x5 1/2	Own.....	Force Feed	Own.....	Delco.....	Delco.....	Willard.....	Raybestos
Premier..... 6-D	126 3/4	Own.....	6-3 1/2x5 1/2	McCord	Force Feed	Johnson.....	Delco.....	Delco.....	Willard.....	.....
Reo..... T6 & U6	120	Own.....	6-3 3/16x5	Own.....	.....	Rayfield.....	North East	.....	Willard.....	Raybestos
Roamer..... 6-54-E	128	Cont.....	6-3 1/2x5 1/4	Hayes	.....	Stromberg	Bijur.....	Bosch.....	Columbia.....	.....
Roamer..... 4-75-E	128	Dues.....	4-4 1/2x6	Hayes	.....	.....	.....	.....	.....	.....
Rolls-Royce.....	143 1/2	Own.....	6-4 1/2x4 3/4	Own.....	Force Feed	Own.....	Bijur.....	Own.....	Exide.....	.....
Star.....	102	Cont.....	4-3 1/2x4 1/2	Fedders	Force Feed	Tillotson.....	Auto-Lite	Auto-Lite	.....	.....
Stephens..... 50	122	Own.....	4-3 1/2x4 1/2	Fedders	Force Feed	Tillotson.....	Auto-Lite	Connecticut	U. S. L.....	.....
Studebaker..... Light Six	112	Own.....	6-3 1/2x4 1/2	.....	Cir. Splash	Stromberg	.....	.....	.....	.....
Studebaker..... Special Six	119	Own.....	6-3 1/2x5	.....	Cir. Splash	Stromberg	Wagner.....	Wagner.....	.....	.....
Studebaker..... Big Six	126	Own.....	6-3 1/2x5	.....	Cir. Splash	B. & B.....	Wagner.....	Wagner.....	.....	.....
Vauxhall.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Westcott..... B-44	120	Cont.....	6-3 1/2x4 1/2	.....	Force Feed	.....	Delco.....	Delco.....	Willard.....	.....
Westcott..... D 48	125	Cont.....	6-3 1/2x4 1/2	.....	.....	Rayfield.....	Delco.....	Delco.....	.....	.....
Westcott..... C-38	118	Cont.....	6-3 1/2x5 1/2	.....	.....	Rayfield.....	Delco.....	Delco.....	.....	.....
Willys-Knight..... 26	118	Own.....	4-3 1/2x4 1/2	Own.....	Cir. Splash	Tillotson.....	Auto-Lite	Connecticut	U. S. L.....	.....
Willys-Knight..... 27	124	Own.....	4-3 1/2x4 1/2	Own.....	Force Feed	Tillotson.....	Auto-Lite	.....	U. S. L.....	.....
Wills Sainte Claire..... A-68	121	Own.....	8-3 1/2x4	.....	Force Feed	Zenith.....	Delco.....	Delco.....	Willard.....	.....

ENGINE MAKE: Cont., Continental; Dues., Duesenberg. LUBRICATION: Cir. Splash, circulating splash. STARTING AND LIGHTING: A. K. Atwater-Kent; G. & D., Gray & Davis; West, Westinghouse. IGNITION: A. K., Atwater-Kent; West, Westinghouse. CLUTCH TYPE: d-disk, dry-disk. CLUTCH MAKE: B. & B., Borg. & Beck.



# Sold In Canada. Prices F.O.B. Toronto

quoted include all taxes.

CLUTCH		Tires	P R I C E S							NAME AND MODEL
Type	Make		Two Passenger	Four Passenger	Five Passenger	Seven Passenger	Coupe	Sedan	Limousine	
d-disk	Own	33x5	\$5,025	\$5,100		\$5,100	\$6,275	\$6,650	\$7,450	Cadillac..... 61
d-disk	Own	32x4	1,925		1925		3,335	3,795		Chalmers..... 35-C
disk	Own	32x4				2,200				Chalmers..... 35-C
plate	B. & B.	33x4								Chandler..... Six
cone	Own	30x3 1/2	H 695 K		710		910	1,125		Chevrolet..... Superior
plate	B. & B.	32x4								Cleveland..... 41
cone	Northway	32x5								Cole..... 850
d-disk	B. & B.	32x4	2,315	2,315	2,315		2,995	3,125		Columbia..... Elite
d-disk	B. & B.	31x4	1,695		1,595	1,770	1,920	2,315		Columbia..... Light Six
								2,400		
d-disk	Own	32x4	1,425					1,975		Dodge Brothers.....
plate	Own	31x4	H 1,280 K		1,280		1,750	1,800		Durant..... A22
plate	Own	32x4 1/2	H 2,050 K		2,100		2,900	3,100		Durant..... B22
plate	B. & B.	31x4								Davis..... 71
plate	B. & B.	32x4								Davis..... 61
d-disk	B. & B.	32x4	2,250		1,695		2,175	2,750		Earl..... 40
o-disk	Owa	32x4			1,600		1,745	1,900		Essex.....
o-disk	Own	30x3 1/2	H S 490 K		S 530		695	785		Ford..... T
plate	B. & B.	32x4	3,050		3,150		4,400	4,550	5,050	Franklin..... 10
plate	B. & B.	32x4								Gardner..... T-R. & G
d-disk	Detlozf.	31x4	1,360		1,360	E. 1,635	2,080	2,190	2,350	Gray-Dort..... 15-14
d-disk	B. & B.	33x5								Haynes..... 75
d-disk	B. & B.	32x4 1/2								Haynes..... 55
o-disk	Own	34x4 1/2		2,325	2,485	2,400	3,930	3,505		Hudson..... Super-Six
d-disk	Own	32x4	1,750		1,750		2,525	2,750		Hupmobile..... Series R
		31x4	1,565		1,565		2,300	2,335		Jewett..... Six
d-disk	Ansted	32x4 1/2								Lexington..... 23
d-disk	B. & B.	32x4								Liberty..... 10D
d-disk	Own	33x5	H 6,100 K			6,100	7,100	7,600	8,200	Lincoln.....
d-disk	Own	32x4 1/2								Marmon..... 34
cone	Own	31x4	1,395		1,395		1,895	2,075		Maxwell.....
d-disk	B. & B.	31x4			2,045			2,675		Moon..... 6-40
d-disk	B. & B.	33x4 1/2	2,975		2,815			3,895		Moon..... 6-58
d-disk	Own	31x4	H 1,275 K		1,235	E. 1,855	1,645	1,950		McLaughlin..... 1923-34-35-36-37-38
d-disk	Own	33x4	H 1,695 K		1,725		E. 2,725	2,795		McLaughlin..... 1923-41-44-45-7
d-disk	Own	34x4 1/2	H. C. 2,295 K		2,095	E2,375	2,675	3,095		McLaughlin..... 1923-48-9-50-54-55
plate	B. & B.	33x4	1,925	2,625	1,945					Nash..... 691-96-97
		34x4 1/2				2,295	3,125	3,555		Nash..... 692-94-95
plate	B. & B.	33x4	1,545		1,565		A. 2,165	2,550		Nash Four.....
cone		32x4	H 1,395K	C. 1,645H	1,425H		H. 2,095	H. 2,195		Oakland..... 6-44
d-disk	B. & B.	32x4		H. 1,355K	1,375		2,065	2,245		Oldsmobile..... 43-A
d-disk	B. & B.	32x4	H. C. 2,295K	1,895	1,895		2,595	2,795		Oldsmobile..... 47
plate	Own	30x3 1/2	K 785		785		1,095	1,295		Overland..... 4
d-disk	Own	33x4 1/2	3,935	C 4,200	3,935		5,050	5,210	5,290	Packard..... Single Six
d-disk	Own	33x4 1/2				4,260		5,615	5,695	Packard..... Single Six
d-disk	Own	35x5	6,070	6,070		6,070	8,290	8,545	8,345	Packard..... Twin Six
d-disk	B. & B.	32x4 1/2	T. 3,475		3,475	3,475	4,300	4,650		Parker.....
plate	B. & B.	32x4			2,330					Paige..... 6-44
plate	B. & B.	33x4 1/2	A. 3,950	C. 3,590		3,490	4,950	5,040	5,350	Paige..... 6-66
d-disk	Own	33x5	7,800	7,800		7,800	10,300	10,400	10,500	Pierce Arrow.....
d-disk	B. & B.	32x4 1/2								Premier..... 6-D
d-disk	Own	33x4		C. 2,600	2,350		2,900	3,890		Reo..... T6 & U6
plate	B. & B.	32x4 1/2								Roamer..... 6-54-E
		32x4 1/2								Roamer..... 4-75-E
cone	Own	33x5								Rolls-Royce.....
plate		30x3 1/2	H.S. 580K		S 620		S. 840	S.930		Star.....
d-disk	B. & B.	33x4 1/2	T. 2,750	2,775	C 2,900		3,990	4,275		Stephens..... 90
d-disk	Own	32x4	A. 1,560		1,560		2,000	2,500		Studebaker..... Light Six
plate	Own	32x4	2,000	2,025	2,025		3,100	3,325		Studebaker..... Special Six
plate	Own	33x4 1/2		2,825	2,575		3,575	3,800		Studebaker..... Big Six
										Vauxhall.....
plate	B. & B.	32x4			2,495	2,695		3,795		Westcott..... B-44
plate	Warner	32x4 1/2			2,795			3,995	4,295	Westcott..... D-48
plate	B. & B.	33x4					3,595	3,595		Westcott..... C-38
plate	Own	33x4	K. 1,800		1,800		2,650	2,800		Willys-Knight..... 20
d-disk	Own	32x4 1/2			2,100			3,200		Willys-Knight..... 27
d-disk		32x4 1/2	3,775				4,950	5,250	5,900	Wills Sainte Claire..... A-68

A. 3-passenger; B. 6-passenger; C. sport; E. touring sedan; H. F.O.B. Canadian Factory Price on all models; K, taxes extra on all models; S, price with starter; T, F.O.B., Montreal; V, business sedan.



# Protect Profits By Asking 'Em To Pay

Shop Operators Have Been so Willing to Give Service to Car Owners That They Have Mistakenly Included the Extension of Credit as Part of the Service. They Must Ask 'Em to Pay

**P**ROCURING prompt settlement of accounts is a problem which confronts practically every business house to-day. It does not make any difference what the nature of the business so long as credit is granted. It seems to be a natural consequence to have a number of slow accounts.

Nearly every business is carried on on a credit basis, and until such time as some means can be devised to put all business transactions on a strictly "cash with order basis," this condition of affairs will prevail. While it is impossible under existing conditions, to entirely eliminate these bad or slow accounts, we can, by judicious and systematic handling, prevent a great many losses.

The money that is owed to the shop by the car owner for work done belongs to the shop operator and not to the car owner. The shop operator should ask for it—and insist that he get it.

If you buy some money from the bank for sixty days the banker asks you for it at the end of sixty days and doesn't stop asking until he gets it. This is the banker's idea of the way to handle debts. He doesn't have a very high opinion of people who aren't as good at asking for their money as he is at asking for his money. If you want to stand well with the banker collect what folks owe you.

If you do \$100 worth of work and if your profit is \$10 you haven't made any money at all if \$10 is never paid by some customer. And each day the money is over-due it shrinks. By the end of the year it has shrunk at least 60 cents, because, to take its place you would have to borrow money at not less than 6 per cent. Or, if you don't have to borrow money, the \$10 has shrunk by the interest it would have earned had you had it in the bank or in an investment.

Practically all of the car owning public has money. It is safe to assume that if a car owner continues to live and enjoy health he must be paying somebody. If he isn't paying you you are contributing to the income of somebody else. They are cases, of course, of car owners who actually cannot pay their bills, but a large number of the so-called "hard ups" could pay if they chose to do so.

The shop operators in this business have been so willing during past years to give service to car owners that they

have mistakenly included the extension of credit as part of the service. This has caused many car owners to assume the attitude that the shop bill was "all right" and that it could be met "any time"—that the shop man "didn't care." But the shop operator does care, and if he is going to have any shop profits at all he must get his money. He must ask 'em to pay.

## No Bill Should be Permitted to Run Longer Than the End of the Month

At the end of the month send out bills. If they are not paid in ten days send the bill a second time with a letter something like this:

"Dear Mr. Smith: Perhaps the statement of your account which we mailed the first of last month went astray. In case it became lost in the shuffle we are enclosing another."

If you don't hear from the man in a week write him again, something like this:

"Dear Mr. Smith: Your account of \$17.21 of last month is still unpaid and we haven't heard from you. May we please hear from you, as in the absence of any word we can't very well do anything other than write you letters—and we don't like to do that."

If you don't hear from him in a very few days, write him again:

"Dear Mr. Smith: We have written you three times concerning your account of \$17.21. We feel rather hurt that you have not even spoken to us about it. You are not at all the sort of person one would care to refer to a collector, but that is all we can do if you don't even reply to our letters."

If he doesn't make a reply, make a reasonable effort to see him and find out what the trouble is. If he is a plain delinquent turn the account over to an attorney. That isn't drastic action. It's plain business sense. The debtor isn't letting other people do business on his money. Why should you let him do business on your money?

Maybe the man is good but is temporarily out of funds. If he is that sort of man he will have no objection to giving you a note for his account. With this note, you have something better than a plain open account. You may be able to discount the note at the bank—which is better than not getting anything at all.

## Here's An Idea

Here's a way suggested by a jobber's salesman: Go see the man who owes you and tell him you need the money to pay your own business bills. If he says he can't pay to-day, ask him when you can call again. If he says "about" a week, or "about" any other time, you make it definite by suggesting a definite day and a definite hour and come back at that time. The man has an appointment with you and has "invited you to come back."

If he again says he can't pay, make another appointment for another definite day and hour. When the time comes be there.

Keep doing this.

"Finally," says the salesman, "he'll start paying on account, and finally he'll get so sick and tired of you he'll pay it all up to get rid of you."

**When you have had one such experience with a man don't ever let him get on your books again. Make him pay cash or don't give him his car.**

One dealer got his jobber to write him a strong "collection letter," threatening the dealer with foreclosure if the dealer didn't pay the jobber. The dealer showed this letter to his delinquent customers and collected a lot of money. Why? Because many debtors are thoughtless. They don't realize that the shop operator actually has to have money with which to run his business.

One dealer took his books and a bundle of blank notes and succeeded in getting a lot of them signed.

One dealer went to a bad account with a mortgage and insisted that the debtor give the mortgage. The debtor paid on the account and soon cleaned it all up. He had claimed he had no money but produced it out of an old sock.

Many dealers believe they will lose customers if they ask 'em to pay. Remember this: The minute a man owes you money you have lost him as a customer until he pays up. He will run a bill until he is ashamed to meet you on the street and then go to some other shop and run up bills there or pay the other shop cash.

Making him pay may make him displeased with you for a short time, but before long he will come back—if you run a good shop—and will be a better customer than ever.



# *The Harvester Company's Newest Tractor*

## **McCormick-Deering 15-30**

Smooth-running, long-lived, economical! Years ahead of any tractor heretofore produced! Naturally it remained for the Harvester Company, with long-time tractor and farm machine experience and great resources, to bring out the one great epoch-making farm power value. The McCormick-Deering 15-30 stands in a field of its own—the logical tractor for the dealer who wants to sell the best in modern-day farm power.

### **Ball and Roller Bearings at 29 Points**

These dust-proof, quiet-running bearings relieve the McCormick-Deering 15-30 of all excess friction—at drawbar or belt work the power of the 4-cylinder, valve-in-head, kerosene motor is delivered without strain or drag. In fact, every unit of the new McCormick-Deering 15-30 has been designed for long

life, full power, and operating comfort.

The McCormick-Deering 15-30, like all Harvester tractors, is an all-purpose farm power plant. It is equipped with belt pulley, large steel platform, wide fenders, throttle governor, adjustable drawbar, reliable brakes, and removable angle lugs.

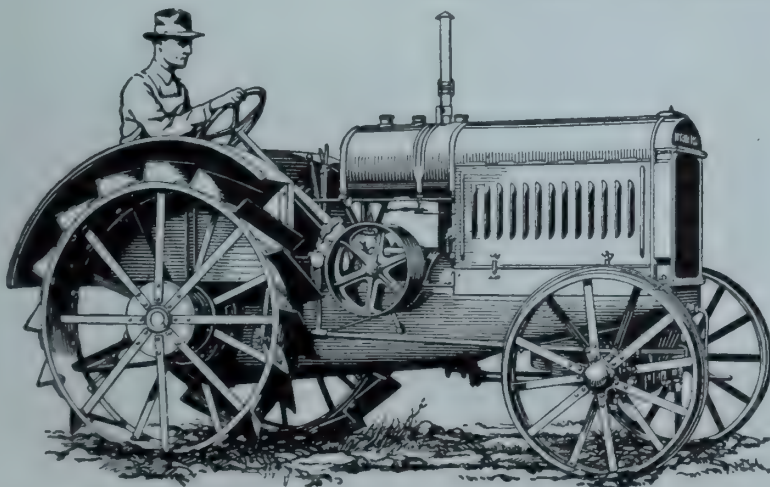
## **INTERNATIONAL HARVESTER COMPANY**

of Canada, Limited

HAMILTON

CANADA

*16 Branch Houses in the Dominion*



Many enterprising McCormick - Deering dealers are already placing the new McCormick-Deering 15-30 among the farmers in their communities. And the outfits they are selling now are helping to lay the foundations for brisk spring trade. Don't overlook this opportunity. Begin now to advertise, canvass and sell!



# Shop Notes for the Garage Man

## PULLER FOR BALL RACES

By Geo. Barrett.

THE SKETCH at Fig. 3 shows a puller for removing worn out ball races and gears from axles and shafts, etc. By its use a lot of labor is saved and the danger of disfiguring shafts, etc. eliminated.

The apparatus is simple and is made of a special casting, A, which is drilled and tapped for a  $\frac{3}{4}$  steel screw of the required length. It is well to have this casting long enough so that a number of holes can be drilled making it adjustable for various diameters.

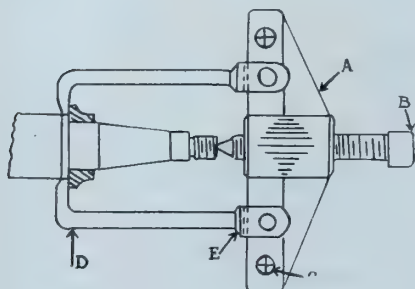


Fig. 1.

The pulling hooks, D, are made from machine steel, or a steel casting, and are of the clevis pattern. They are held in position by pins or suitable bolts. The sketch shows the puller in use on an axle ball race but by changing the position of the hooks it can be accommodated to other purposes.

## GRINDING ATTACHMENT FOR A LATHE

By Geo. Barrett

A LATHE in a repair shop is a valuable piece of machinery as it can be made to do the work of nearly all other machine tools by the aid of special attachments to suit the work to be done.

The sketch, Fig. 4, shows a grinding attachment for grinding external diameters. It consists of a special countershaft which is set up a short distance from the lathe countershaft, and a little to one side so as to get the necessary travel on the drum, A, for the emery wheel belt.

This drum is made as light as possible and in this case consists of a tin cylinder held on the shaft by two cast iron flanges, B, and driven by a belt running on the small pulley, C. The speed of the emery wheel, D, is around 5,000 ft. per min.

The grinding head, E, is made very

rigid and held by two bolts on the cross-slide of the lathe, and at a height so that the centre of the emery wheel will correspond with the centre of the lathe spindle. The wheel is fed to the work by the cross-slide handle of the lathe after which the carriage, which is better with a coarse feed, is set in motion.

This attachment costs very little to

## A VALUABLE GARAGE KINK

By D. A. Hampson

FOR making the little repairs to cars waiting at the curb, a work bench 4 ft. long and 2 ft. wide, at or near the front of the building is the handiest equipment imaginable. It is too small to be in the way or become a catch all.

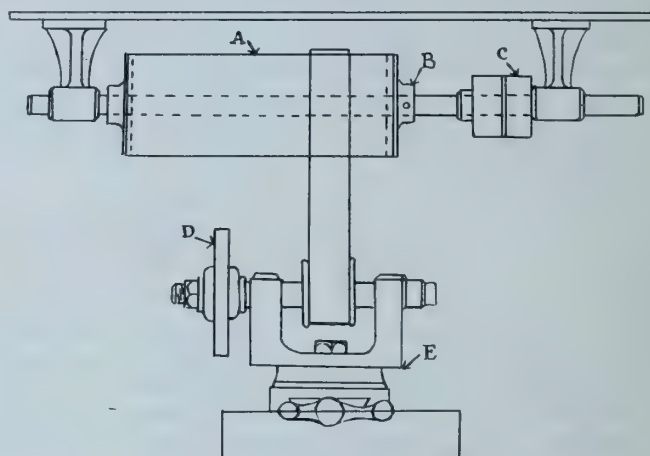


Fig. 2.—Grinding Attachment For a Lathe.

make and answers the purpose of an expensive grinder.

## AN OIL PROOF PASTE

By D. A. Hampson

VERY often some kind of a paste or filler is desired on joints which are supposed to be oil tight but are not. This need is felt more strongly on old cars, where the multiplicity of parts and inferior designs called for more attention to details than we now encounter. The sagging of a frame, a slightly damaged part from an accident, or the "settling itself" to which metal castings are subject in seasoning—all may cause a joint to open so that gaskets do not suffice.

Shellac, putty, various fillers, paint, etc., are used in an attempt to stop the leak but they either harden so they crack under the jar of road work or they soften up. Then, there are places where a joint is made against glass and these materials do not take hold. Litharge mixed with glycerine to a more or less plastic state will do the trick where all else fails. Litharge is made of oxide of lead—it is one degree removed from red lead and the latter will make a fair substitute if litharge cannot be obtained. This paste is an old plumbers' remedy and has stood the test of time against oil, hardening, and jarring loose.

Well set up and with a good vise on it, it will save miles of unproductive walking every week.

## Protecting Spring Leaves

Spring leaves are about the most neglected moving parts of any car or truck. They are supposed to move—slide—on one another every time an irregularity in the road is encountered. And they will do it if given half a show. Really, care of the springs is a simple matter and it will return 100% in better riding qualities, repairs and replacements, and quietness.

If it were not for water and dust, springs would give indefinite good service without attention, so long as they had been properly lubricated when the machine was new but these elements are ever present and it is necessary to "beat them to it" to keep springs in a healthy state. The covers, or boots, now on the market for inclosing spring packs are a most excellent thing. For anyone who does not care to go to the expense of boots, a roll or two of friction tape can be made to do as well; this is wound about each spring, full length, and makes as effectual a covering as a boot and one that is good for one season or more.

There is no use in covering up the springs unless they are properly cleaned and lubricated. Either the hose or a good sponge washing will take away all

(Continued on page 48)



HALL GEAR & MACHINE CO.  
LIMITED  
15 DUNDAS STREET WEST  
TORONTO, ONT.

#### DETAILS:

- A—SPRING ADJUSTING SCREW UNDER BALL JOINT B.
- B—BALL JOINT AND INTERCHANGEABLE STEM TO FIT ELECTRIC DRILL.
- C—PARALLEL HINGED STONE CARRIER.
- D—SQUARE CARBORUNDUM GRINDING STONES.
- E—SHOWING ONE OF FOUR CANTILEVERS ALL OPERATED BY ONE SPRING IN CENTRE OF BODY.
- F—HINGE FOR STONE CARRIERS ALLOWING STONES TO BE COMPRESSED TO SMALLER DIAMETER.
- G—STONE-HOLDING SCREWS.

#### MADE IN TWO SIZES:

- 2¾ TO 3¼ . . . . \$70.00
- 3¾ TO 4¾ . . . . \$75.00

PATENT APPLIED FOR  
MADE IN CANADA

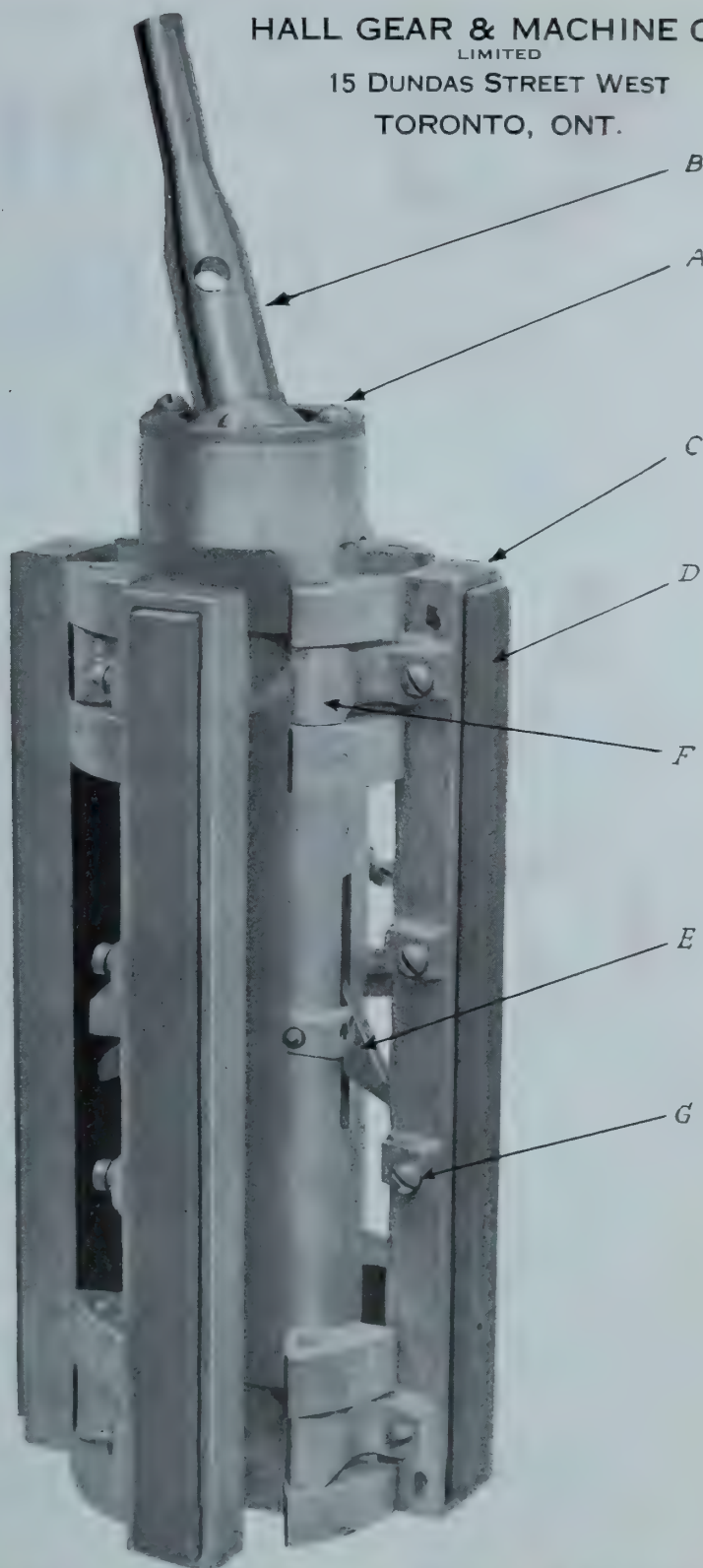
Grinds cylinders in or out of chassis by attaching to electric drill or drill press.

No adjustment necessary other than tension spring.

Four cylinders reground parallel by ordinary mechanic in an hour.

Half length stones furnished for roughing out taper, full length stones for finishing.

**AMERICAN RIGHTS  
FOR SALE**



# HALL'S CYLINDER HONE

*"The Tool You Have Been Waiting For"*

**ORDER FROM YOUR JOBBER TODAY**





MAKE  
CHRISTMAS  
1922 AN

Automotive  
Christmas

*and let us help you.*

Get in touch with your  
nearest distributor for  
Free Advertising Help

Canadian Automotive







# Canada's 500,000 Car Owners Provide a Wonderful Xmas Market

*Any one of the following list of articles would make a fine Xmas gift for the motorist.*

Radiator Cap  
Radiator Wing  
Rubber Running Board Mats  
Aluminum Running Board Mats  
Tire Cover  
Luggage Carrier  
Windshield Cleaner  
Moto Meter  
Outside Mirror  
Inside Mirror  
Windshield Visor  
Flashlight  
Pair of Tire Chains 30x3½  
Spotlight  
Klaxon Horn, No. 5  
Auto Reelite Spotlight  
Glengarry Robe  
Bumper, Lyon  
Hartford Shock Absorbers

*Show them in your windows*

Every car owner and there are roughly 500,000 of them, will this year receive many Xmas gifts.

What should please a motorist more than some useful accessory for his car?

Think of it, men, 500,000 of them! Say they each only receive gifts from two or three friends. What a chance for us. Just one million to a million and a half selling opportunities for the live accessory dealer, to sell the car owner's friends some useful attachment for his car.

What a chance. It's a stupendous potential market and all we have to do is to use a little judgment in educating the public.

Let's get together quick. We are all ready to co-operate with any live dealer and help him cash in on this fast approaching opportunity.

We have free window cards, free mailing pieces, free window dressing service—a real sales plan waiting for every wide awake dealer who wants to get his share of the big Xmas business that is his for the taking.

This is our big chance. Canada is prosperous and the people have plenty of money to spend. Let's see that we get our share.

WRITE, WIRE OR PHONE YOUR DISTRIBUTOR TODAY FOR FULL PARTICULARS OF OUR XMAS CO-OPERATIVE SALES CAMPAIGN. LET'S GO.

# Equipment Association





# New Automotive Equipment

## RED D DEE SHOCK ABSORBER

THIS shock absorber for Fords differs from conventional devices in that it loads the springs much the same as when the car is filled with passengers. It does not interfere with the face downward action of the springs, and does not cause overloading when the full carrying capacity of the car is utilized. By loading the springs without the weight on the wheels it is claimed the absorber prevents rebounds and checks sideway. The shock absorbers consist of a set of four members for installation on front and rear springs. Made by Detroit Motor Casting Company.



Red D Dee  
Shock  
Absorber

## DIREX TRAFFIC SIGNAL

THE Direx signal indicates left, right, and stop. The right and left signals are controlled by nickel plated buttons mounted on a steel arm, japanned and baked, and attached to the steering column, bringing control within easy access of the finger tips without moving the hands. If desired the buttons may be placed on the instrument board, door, or cross-arms of the wheel. The stop signal works automatically from the service brake.

The body of the Direx is in one piece made from cold rolled steel, japanned and baked. It contains three compartments, each with its own light and control, and each compartment a complete signal in itself. It is made by the Akron Signal Company.



Presto Motor Heater



Cooper Directometer

## BUTLER VAPORIZER

THIS device is installed between the carburetor and the intake manifold and consists of seven copper tubes, through which the fuel mixture passes, enclosed in a cast iron heating jacket. The hot gases from the exhaust pipe are by-passed around these tubes, and led out by another pipe terminating beneath the motor pan. The principle of the Butler Vaporizer is similar to that of the radiator on a car.

To cool all the water passing through a radiator it is sub-divided into many small streams passing through very thin pipes so that the maximum amount of water will come into contact with the cooling surfaces of the radiator. The method, it is said, is applied in the Butler vaporizer in reverse order.



Butler Vaporizer

The seven small tubes, the makers say, eliminate the "cold center," bringing all the liquid fuel into contact with heated surfaces, flashing all the mixture into a dry gas that immediately increases the flexibility and power of the engine. It eliminates carbon deposits and crankcase oil dilution. It reduces fuel consumption twenty to forty per cent.; it is further claimed it greatly facilitates starting away with a cold engine in cold weather. Manufactured by the Butler Vaporizer Corporation.

## COOPER DIRECTOMETER

THIS device is designed to tell the direction the car is travelling. It is constructed of aluminum and fully insulated by being attached to the windshield. The eight principal points of the compass are marked on the dial in luminous letters which are discernible at any time of the day or night. It is made for all cars. Manufactured by the Cooper Mfg. Company.

## PRESTO MOTOR AND RADIATOR HEATER

AN ELECTRIC engine and radiator heater used under the hood of the car when in the garage has been placed on the market. It attaches to an ordinary light socket and draws 1½ amperes. It gives a strong uniform heat. A spiral wire handle is provided for handling the heater comfortably and a hinged hook on the heater makes it possible to hang it anywhere desired under the hood. The heater is 11½ in. long and 2 in. in dia., with black enameled steel covering and nickel plated ends. It is supplied with ten feet of cord and attachment plug for use on 110 volt, either direct or alternating current. Made by the Metal Specialties Mfg. Co., and distributed in Canada by Joseph St. Mars, Winnipeg and Toronto.

## KOSTER'S DASH FIXTURE

THIS device is finished in nickel, is installed on the dash, and combines a trouble light, car light, parking light, and cigar lighter. It has 11 ft. of cord on a self-winding spool which is out of sight behind the dash. It is attached to the battery and is always in reach. Made by Koster Inc.



# Overland

TRADE MARK REGD

Increased sales of 1922 have been due to four factors:

- (1) Better business conditions generally.
- (2) An improved car.
- (3) Lower prices.
- (4) Stronger dealer representation.

For 1923, the prospects are for the continued upward curve of trade. The new Overland prices mean still greater value for the owner. And we are continuing the appointment of dealers in hitherto open territory.

So, if you are in a district not served by Overland to-day—if you have the financial backing to engage in the automobile business along modern merchandising lines—and if you are open to make a profitable connection, write our Sales Department before someone else recognizes the opportunity.

*\$ Reduced to*

# 785



**TOURING**  
Now \$785

**ROADSTER**  
Now \$785

**SEDAN**  
Now \$1295

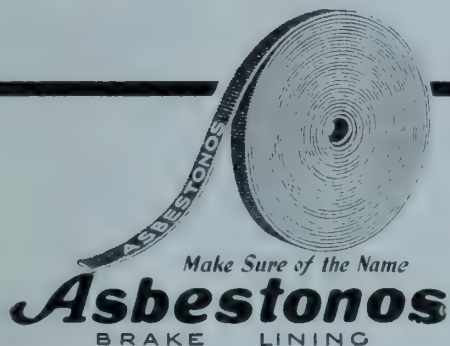
**COUPE**  
Now \$1095

Freight from Toronto and Taxes Extra

## Willys-Overland Limited

HEAD OFFICE AND FACTORIES: TORONTO, CANADA

Branches: Toronto Montreal Winnipeg Regina



THE ONLY BRAKE LINING  
COMPLETELY MADE IN  
CANADA.

SALES ARE NOW CON-  
TROLLED THROUGH OUR  
NEW SALES OFFICES IN  
MONTREAL.

### Asbestonos Company

35 ST. NICHOLAS ST. MONTREAL  
FACTORY: EAST BROUGHTON, QUE.

## Antiquated Methods

Find no room in the Hayes Wheel organization. Although a pioneer in the automobile wheel industry, the Hayes Wheel Company has not only advanced with the times but has also been prominent in every step which has marked progress in the designing and manufacturing of automobile wheels.

As a result of its unswerving determination to continue the production of 100% perfect wheels only, this company has expanded to such an extent that to-day it is

**The Largest Manufacturer of  
Automobile Wheels in the World**

In our AXLE, RIM and FORGING plants you will find the greatest care exercised in the production of all parts—from the smallest to the largest.

Our many customers may feel assured that the "Hayes" standard of efficiency and quality will still be maintained.

*The World's Best—  
They Stand the Test*

### The Hayes Wheel Co. of Canada, Limited

Chatham, Ont.



# An Organization that helps you Build



# Firestone



# Permanent and Satisfactory Business

With the opening of the new Firestone plant at Hamilton, Ontario, the Firestone product and policy become an even greater asset to the tire dealer who is planning both for immediate growth and permanent business.

The name Firestone has always been an asset in selling tires, for it is more than a mere name; it stands as the signature of a man at the head of the great Firestone organization. So, for more than twenty years, the name Firestone and "Most Miles per Dollar" has been synonymous with the utmost in tire values.

The Canadian Firestone organization is building, to-day, a complete and balanced line of cord tires, fabric tires and inner tubes.

Firestone dealers are in the unique position of being able to supply their customers' needs for 3½" tires by carrying three types of tires only, and the increased production made available by the new plant places Firestone prices on a level no higher than that of ordinary tires. This gives the Firestone dealer the advantage of being able to offer both quality and price.

The sooner you start building your business the Firestone way, the sooner you will find your business profitable. Ask your Firestone distributor about our spring dating plan, or write us direct.

## PRICES THAT BESPEAK MOST MILES PER DOLLAR

30 x 3½ Fabric . . . . .	\$12.00
30 x 3½ Regular Size Cord . . . . .	14.50
30 x 3½ Over-Size Cord . . . . .	17.50

FIRESTONE TIRE AND RUBBER COMPANY of CANADA, LIMITED  
HAMILTON, :: :: ONTARIO

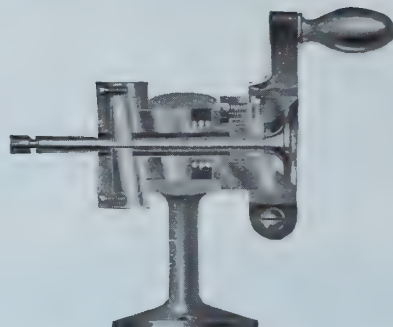
# CORD TIRES



# Shop Equipment

## WAYNE VALVE FACER

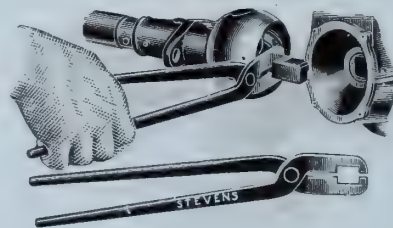
THE WAYNE valve facer introduces new principles in reseating valves. These are designed, it is said, to eliminate chatter and tool marks on the finished valves. During the cutting operation the valve is supported all around by the hardened and ground surface of the cutter head and the valve stem is held rigidly by the chuck. Made by the Wayne Tool Mfg. Co.



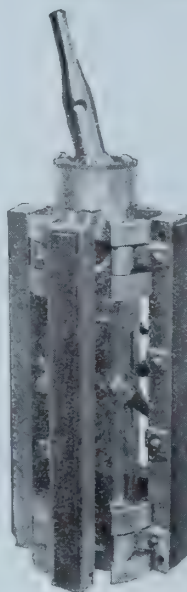
Wayne Valve Facer

## WAYNE VALVE SEAT REAMER WITH EXPANDING PILOT

THE expanding pilot of the Wayne valve seat reamers was designed to insure a perfect sliding fit of the pilot where the valve stem hole has become larger by wear. After inserting the pilot in the hole, it is expanded by screwing down the taper mandrel, until a sliding fit is obtained. The tight fit of the pilot insures the valve seat being absolutely central with the valve stem hole and at the same time eliminates all chatter—a smooth finish of the valve seat being the result. Very little grinding in is then necessary. The cutter has a ground taper part which fits the ground taper part of the pilot, thus making all parts central with each other. Made by the Wayne Tool Mfg. Co.



Stevens Universal Joint Tongs



Hall Cylinder Hone

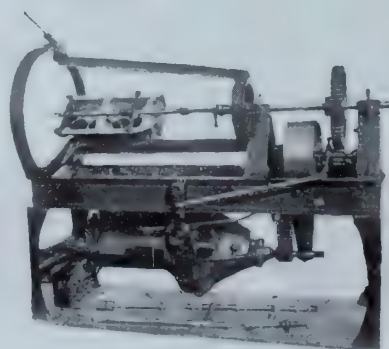


Wayne Valve Seat Reamer

## ALL-IN-ONE AUTO MACHINE

THIS is a combination machine for overheating all makes of engines. It combines an engine stand, power stand, burning-in and running-in machine. One model is built especially to handle Fords, Chevrolets, Overlands, etc. This type has attachments for cylinder boring, rebabbiting, babbitt boring, bearing reaming, crankshaft grinding, etc. A feature of the machine is that every operation on the motor is performed without handling of the motor block from the rebabbiting of the bearings to the running-in of the completely assembled motor. The motor block is placed in the frame of the machine and may be revolved in any desired position with the crankshaft as a centre.

The machine has a fly wheel running at a speed of 1,100 r.p.m. and has a gear reduction of 1 to 4 after the fly-wheel, multiplying this momentum 4 times and giving ample power to burn



All-In-One Auto Machine

in all seven bearings if desired. Made by the All In One Auto Machine Company.

## STEVENS UNIVERSAL JOINT TONGS

THESE tongs are used for putting the universal joint into place when setting in the rear axle of Fords. They give complete control and slip the joint into place instantly. They are made by Stevens and Company.

## VA-CAR INSIDE TIRE

### PLASTER PATCH

FOR patching the inside of the casing after a puncture to prevent the entry of sand, dirt and water, an inside tire plaster patch has been put on the market by the Virginia-Carolina Rubber Co. The centre of the patch is coated with a layer of tread rubber and the patch is covered with self-vulcanizing cement which vulcanizes the patch to the casing. The patch is made in four sizes for nail holes, cuts to  $\frac{1}{2}$  in., blowouts to 1 in., blowouts to  $1\frac{1}{2}$  in. and blowouts to 2 in.

## SNAPPY CAP FOR FORD RADIATORS

SNAPPY Cap has been placed on the market by the Bethlehem Spark Plug Company. A mere touch of a black enamel trigger causes the top to fly open. A slight pressure on the lid closes it quickly. The bright parts are nicked. The cap itself is finished in glossy, non-flaking black enamel.

## HALL CYLINDER-HONE

THIS tool is for re-sizing and honing cylinders and works in conjunction with an electric drill. It is made in two sizes to fit any cylinder; one for cylinders of  $2\frac{1}{2}$  to  $3\frac{1}{4}$  bore, and for cylinders of  $3\frac{3}{8}$  to  $4\frac{1}{8}$  bore. The stones are eight inches long and bridge the area of piston travel. An even, adjustable spring pressure behind the radially set stones and the relatively high speed of the tool, the makers say, insure a perfectly true job. Chattering and "charging" the cylinder walls are eliminated. The cylinder block is honed in place and the device has a capacity of four cylinders an hour. It is made by the Hall Gear and Machine Co., Ltd., Toronto, Ont. Prices \$70 and \$75.

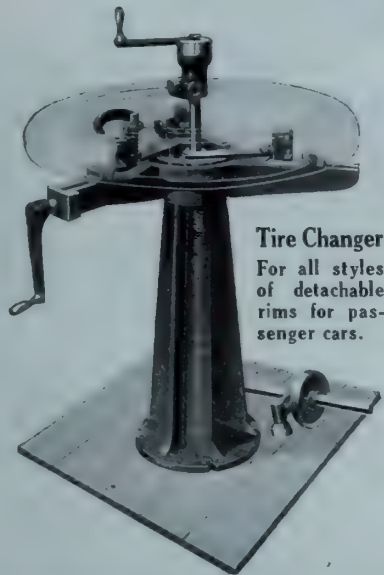


# JARDINE GARAGE EQUIPMENT

## Means Better Service

and better service—real time-saving service—means increased profits to the garage or repair shop man.

Jardine Garage Equipment is designed for speed, convenience and efficiency. It is guaranteed by a concern of over fifty years' standing—a guarantee that means real "after-sale" satisfaction.



**Tire Changer**  
For all styles  
of detachable  
rims for pas-  
senger cars.

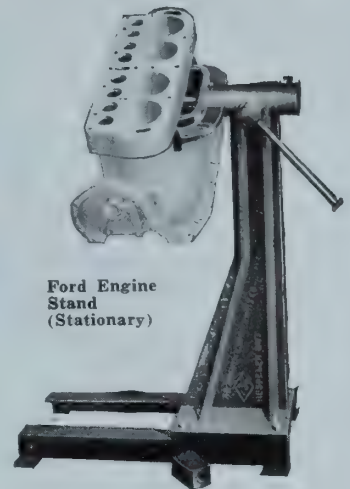
**JARDINE TIRE CHANGER**—This is the only machine on the market that will handle wire wheels. No particular skill required. It will save a lot of time—in fact, the time it saves will alone pay for its cost in a very short time. The price is \$55.00.

**JARDINE STATIONARY ENGINE STAND**—This is specially designed to accommodate either a Chevrolet or Ford Engine. Holds the engine solidly yet without danger of cracking the cylinders. Has a strong cast iron column with a positive lock in any desired position. Price, No. 1 Stationary, \$26.50; Portable, \$34.00.

**Tire Changer**—For wire wheels and all styles of detachable rims for passenger cars.

We also manufacture Presses, Cranes, Taps & Dies, Grinders, Blowers, Forges and Drilling Machines.

Write for catalogue No. G-22.



**Ford Engine  
Stand  
(Stationary)**

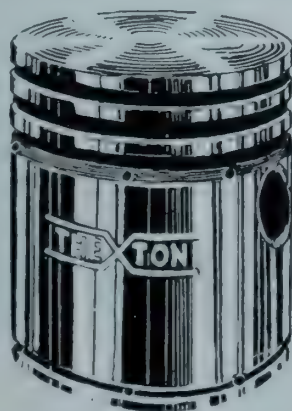
Made in Canada

## A.B. Jardine & Co., Limited

Hespeler, Ontario

## PISTON SERVICE FOR CYLINDER GRINDERS

Largest  
Line  
Made  
in  
Canada



Including  
Many  
You've  
Found  
Hard  
To Get

*Write For Our Piston Directory*

### Thexton Machine Works Ltd.

736 Dundas St. E. TORONTO Phone Main 4233W



## TRAILERS, DUMP BODIES, HOISTS, TRUCK UNITS

**TRAILERS**—There is a Dominion Trailer for every hauling problem. They mean only a small investment but they will reduce hauling cost about 45% per ton mile.

**DUMP BODIES**—No hoist; dump without power; driver simply pulls lever, body dumps and returns automatically. Combine Dump, Express and Stake Body in one.

**HOISTS**—Simple, Foolproof, Speedy and Dependable. Will handle any load up to four tons on any make of truck or trailer.

**TRUCK UNITS**—Built like a truck, not a make-shift. Convert all makes of cars into dependable trucks.

Complete catalogue on request.

### Dominion Truck Equipment Co., Ltd.

Established 1914

Kitchener, Ontario



## News of the Trade

### ALBERTA

**BARONS:**—The Barons Garage, formerly conducted by L. J. Gautrau, has been taken over by "Doc" Mendenhall and J. Arnold.

**CAMROSE:**—Christensen Motors have completed arrangements for the launching of a lath mill project which will be located at a point thirty miles due west of Didsbury on the C. & E. This new project will not interfere with the firm's garage business, which will be carried on as usual.

### ONTARIO

**OTTAWA:**—F. H. Plant Ltd., have opened a new garage and showroom in connection with their works which have been used for carriages and body building, painting and other manufacturing operations. They have the agencies for Wills-Sainte Claire, and Oakland cars and International motor trucks. All kinds of repairs will be handled.

**WATERLOO:**—The building formerly occupied by the "Jack Canuck Cigar" on the corner of King and William streets, has been purchased by the Dobbin Garage and Electric Co., who will conduct an up-to-date repair business.

**LONDON:**—A. Drennan has been appointed service manager by Tennant and Wilson, dealers in Paige and Jewett cars. Mr. Drennan previously spent considerable time in the Paige Detroit Motor Car Co. factory, where he studied the car and service methods.

**LONDON:**—The London Automobile Dealers' Association is offering prize of \$25 to any student in London, for a sketch to be used as a standard advertising design for the coming motor show, Feb. 3 to 10.

**TORONTO:**—Tenders are being called for erection of a service station to cost \$15,000, for the Imperial Oil Ltd., at 56 Church St.

**KINGSTON:**—The Blue Garage Ltd., conducted a successful "Used Car Week" recently.

**TORONTO:**—Garrett Motor Sales have completed a new garage. It is a two-storey, fireproof structure, with copper front and large showroom and stockroom. The second floor is devoted to repairs.

**WINDSOR:**—W. T. Shiells and Son, have secured the agency for the Elgin Six cars.

**WINDSOR:**—The Eanson-Bailey Rubber Sales Co., has been succeeded by the Bailey Rubber Sales Co.

**LEAMINGTON:**—The Ford business formerly conducted by R. J. Forster, has been taken over by C. J. Stodgell, mayor of Walkerville, and A. C. Symes, also of Walkerville. The new concern will be known as Stodgell and Symes Motor Sales Ltd.

**NAPANEE:**—Huyck's Garage was destroyed by fire recently. Two cars were burned.

**LEAMINGTON:**—G. M. Dally, automobile dealer, was killed recently when the car in which he was riding turned turtle. Mr. Dally with a friend was on his way to Oshawa to secure some cars.

**LONDON:**—Ontario Garage and Motor Sales Ltd., during the week ending Oct., conducted a used car sale at which they agreed to pay to the War Memorial Sick Children's Hospital Fund, 2 per cent. of the price of every used car sold during the week.

**MONTREAL:**—Fortiers Garage, 3099 Notre Dame St., E., have started a day and night taxi service. They also have storage space in a fireproof garage for 300 cars.

**MONTREAL:**—Ledoux, Jennings Ltd., have been appointed distributors for Peerless cars.

(Continued on page 48)

# Thor

## Portable Electric Drills

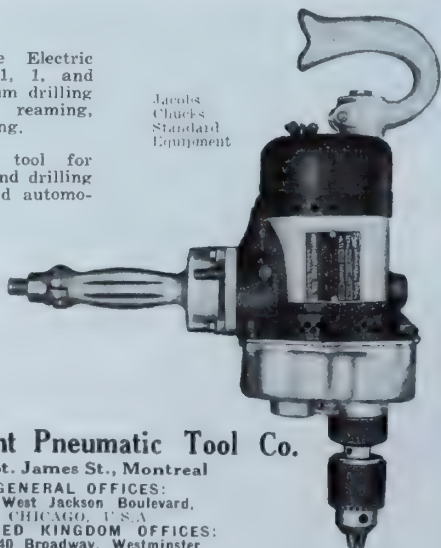
The name "Thor" on an electric drill means something beside a tool of certain make.

It means that that tool embodies those qualities which make for steady, uniform service, long life, and fast, economical production.

Thor Portable Electric Drill (Nos. 01, 1, and 1s). For medium drilling up to 5/8 in., reaming, and wood-boring.

An excellent tool for general all-round drilling in machine and automotive shops.

Jacobs  
Chucks  
Standard  
Equipment



### Independent Pneumatic Tool Co.

334 St. James St., Montreal

GENERAL OFFICES:  
600 West Jackson Boulevard,  
CHICAGO, U.S.A.  
UNITED KINGDOM OFFICES:  
No. 40 Broadway, Westminster,  
LONDON, S.W.1

## A Great Market for Automobiles

THE FINANCIAL POST gives the manufacturer of automobiles, motor trucks, tires and accessories a most distinctive field. Advertising in THE POST will place his message before those who buy cars and equipment not only for themselves (and they are probably 95 per cent. car owners) but who control purchasing policies of large corporations and institutions buying motor cars and motor trucks in fleets for factory use, for branch managers and for salesmen and buying tires and other accessories for these same cars and trucks.

—The Post is read by the directors and executive officers of big business concerns.


—It is read by bankers and brokers.

—It is read by investors—individuals of means.

—It is read by high salaried men.

Its circulation covers a great automotive market—a market built on purchasing power.

Write The Financial Post, 143 University Ave., Toronto, for A. B. C. circulation Statement and rate Cards.

 Advertise Automobiles, Motor Trucks, Tires and Accessories in The Financial Post and reach this really worth-while market.



**Your Christmas Gift Window**

# **Canadian Automotive Trade**

*offers*

**TWENTY-FIVE DOLLARS in PRIZES  
FOR THE BEST DISPLAYS OF  
AUTOMOTIVE EQUIPMENT as XMAS GIFTS**

<b>FIRST PRIZE—</b>	<b>\$15.00</b>
<b>SECOND PRIZE—</b>	<b>\$10.00</b>
<b>THIRD PRIZE—</b>	<b>3 year subscription</b>

*Open to all sub-  
scribers in the  
retail trade*

Simply send us photographs of your display. Write your name and address on back of photographs. Photos should be 5 x 7 or larger. Entries will be judged first on their selling value (the first essential of good window display). Second on their novelty of idea or arrangement. Third, on their general attractiveness.

*Contest closes December 18th. Photographs to be mailed to reach us not later than December 23rd. Winners published in January number. Address all entries to*

**The Contest Editor**

**CANADIAN AUTOMOTIVE TRADE**

**143 UNIVERSITY AVE., TORONTO**



# CANADIAN AUTOMOTIVE TRADE BUYERS' DIRECTORY

## AUTOMOBILES

Willys-Overland Limited, Toronto.  
McLaughlin Motor Car Co., Ltd., Oshawa,  
Ontario.  
Earl Motors Inc., Jackson, Mich.  
Gray Dort Motors Ltd., Chatham, Ont.

## AUTO ACCESSORIES

Gill Mfg. Co., Chicago, Ill.  
Canadian National Carbon Co., Toronto.  
Cutten & Foster, Toronto.  
A. B. Jardine & Co., Ltd., Hespeler, Ont.  
Kemp Metal Auto Wheel Co., Toronto.  
Lamontagne, Ltd., Montreal, Que.  
John Millen & Son, Montreal and Toronto.  
Motor Necessities, Ltd., 231 Somerset  
St., Winnipeg.  
Pressure Proof Rings Co., Montreal, Que.  
Penetang Carriage Co., Penetang, Ont.,  
and Toronto.  
Prest-O-Lite Co. of Canada, Ltd., Toronto.  
Asbestonas Co., Montreal, Que.  
Shaw Auto Salvage Parts Supply Co.,  
Toronto.  
Thexton Machine Works, 736 Dundas St.  
E., Toronto.  
Toronto Auto Accessories, Ltd., Toronto.

## AUTOMOBILE WHEELS

Kemp Metal Auto Wheel Co., Toronto.  
Hayes Wheel Co., Chatham, Ont.

## AUTOMOBILE TIRES

Premier Tire & Rubber Co., Ltd., Toronto  
and Beamsville, Ont.

## BALING PRESSES

J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## BINDERS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## BELT LACINGS

Flexible Steel Lacing Co., Chicago, Ill.  
and London, Eng.

## BRAKE LINING

Asbestonas Co., Montreal, Que.

## BATTERIES

Canadian National Carbon Co., Toronto.  
Prest-O-Lite Co. of Canada, Ltd., Toronto.

## CARRIAGES

Penetang Carriage Co., Penetang, Ont.,  
and Toronto, Ont.

## CREAM SEPARATORS

De Laval Co., Ltd., Peterboro, Ont.  
International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## CRANES (Floor)

A. B. Jardine & Co., Ltd., Hespeler, Ont.

## DAIRY SUPPLIES

De Laval Co., Ltd., Peterboro.  
International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
R. A. Lister Co., (Canada), Ltd., Toronto.

## DUMP BODIES

Dominion Truck Equipment Co., Ltd.,  
Kitchener, Ont.

## ELECTRICAL EQUIPMENT

Canadian National Carbon Co., Toronto.

## ENGINES

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## ENGINE STANDS

A. B. Jardine & Co., Ltd., Hespeler, Ont.

## FEEDERS

J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## FLOOR CRANES

A. B. Jardine & Co., Ltd., Hespeler, Ont.

## GARAGE EQUIPMENT

Cutten & Foster, Toronto.  
Hall Gear & Machine Co., Toronto.  
Independent Pneumatic Tool Co., Mont-  
real.  
A. B. Jardine & Co., Hespeler, Ont.  
John Millen & Son, Montreal and Toronto.

## GRINDERS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## HOISTS

Dominion Truck Equipment Co., Ltd.,  
Kitchener, Ont.

## HOOKS AND HANDLES

Flexible Steel Lacing Co., Chicago, Ill.,  
and London, Eng.

## LAMP GUARDS

Flexible Steel Lacing Co., Chicago, Ill.  
and London, Eng.

## LIGHTING SYSTEMS AND ACCESSORIES

Canadian National Carbon Co., Toronto.

## LUBRICANTS

Imperial Oil Co., Ltd., Toronto.

## MACHINE TOOLS

Butterfield & Co., Rock Island, Que.

## MILKING MACHINES

De Laval Co., Ltd., Peterboro.

## OILS

Imperial Oil Co., Ltd., Toronto.

## PISTON RINGS

The Piston Ring Co., Ltd., Montreal, Que.  
Gill Mfg. Co., Chicago, Ill.  
Lamontagne, Ltd., Montreal, Que.

## POWER MACHINERY

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## PULVERIZERS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## PRESSES

A. B. Jardine & Co., Ltd., Hespeler, Ont.

## ROAD GRADERS

J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## ROCK CRUSHERS

J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## SLEIGHS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## STACKERS

J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## TRACTORS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.  
John Deere Mfg. Co., Ltd., Welland, Ont.

## TRACTOR PLOWS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
Cleveland Tractor Co., Cleveland, Ohio.  
John Deere Mfg. Co., Ltd., Welland, Ont.

## TOOLS

Butterfield & Co., Rock Island, Que.  
Hall Gear & Machine Co., Ltd., Toronto.

## THRESHERS

Birdsell Mfg. Co., Toronto and South  
Bend, Ind.  
International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## TIRES

Premier Tire & Rubber Co., Ltd., Tor-  
onto and Beamsville, Ont.

## TWIST DRILLS

Butterfield & Co., Rock Island, Que.

## TRAILERS

Dominion Truck Equipment Co., Ltd.,  
Kitchener, Ont.

## TRUCKS

Dominion Truck & Equipment Co., Ltd.,  
Kitchener, Ont.  
International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## TRUNKS

Lamontagne, Ltd., Montreal.

## WAGONS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## WHEELS

Hayes Wheel Co., Chatham, Ont.  
Kemp Metal Wheel Co., Listowel, Ont.

## WRECKING CRANES

A. B. Jardine & Co., Ltd., Hespeler, Ont.





Why  
**"Excellence"**  
 Piston Rings  
 mean more  
**POWER**

By expanding both against the cylinder wall and in the groove, they form a perfect seal.

"They can't leak."

Order a trial stock to-day.

**Lamontagne  
 Limited**

Quebec MONTREAL Winnipeg

Samuel Trees & Co., Toronto

# Sales Executive

Long experience in merchandising to the trade in Canada is desirous of making a new connection. Correspondence confidential.

Apply

**BOX 126**

**Canadian Automotive Trade**

## The Penetang Carriage Co., Ltd.

Factory—Penetang, Ontario  
 Sales Office—742 Yonge St., Toronto

*Manufacturers of*

**High Grade Commercial Bodies**

## WedgeRite Piston Rings

The standard by which all rings expanding in the groove are judged. WedgeRite piston rings to-day are better than ever and in addition to this the WEDGERITE PISTON RING is first to reach a SCIENTIFICALLY correct degree of FULL FLEXIBILITY insuring a uniform wall and groove pressure.

*Manufactured by*

**The Piston Ring Co., Limited**  
 Montreal - Canada

## Gasoline Motors, \$50. and up

4 Cylinders 4 Cycle

20 horsepower and up, these motors are taken from high-priced automobiles, and can be used for any purpose where power is required. Hundreds of these motors in use all over Canada are giving satisfaction in motor boats, tractors, cutting boxes, sawing wood, running machinery, etc. We also carry the largest stock in Canada of slightly used parts for motor cars of all kinds.

Satisfaction or refund in full, our motto.

**Shaw's Auto Salvage Part Supply**  
 927-31 Dufferin St., Toronto

## ALLIGATOR STEEL BELT LACING

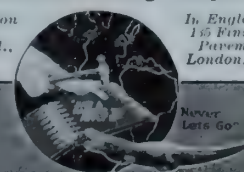
### Strength Comes First

Try Alligator, the Strongest Belt Lacing on Earth. "Every Tooth a Vise." Mechanically perfect. Quick, easy and economical. A size for every belt thickness. Write for samples and interesting text book. Sold through Jobber-Dealer trade channels the world over.

**Flexible Steel Lacing Company**

4904 Lexington  
 Street,  
 Chicago, Ill.,  
 U. S. A.

In England at  
 145 Finsbury  
 Pavement,  
 London, E.C.2





TORONTO:—Garrett Motor Sales, Yonge St., have partially completed their new building. It is a two-storey, fireproof structure, with copper front; large showroom and stockroom; second floor devoted to repairs. A gasoline pump on the curb.

Gee & Duggan have moved from Sheppard St. to 621 Yonge St. When alterations have been completed at 619 and 623, they will occupy the three buildings.

Giles, Rice & Peters, Danforth Ave., are building a two-storey extension, 82 ft. x 60 ft., in rear of their garage. The new showroom will be the size of the present building. Completion is expected in two months.

Wilson Motor Sales, handling the Franklin car, have moved from 619 Yonge St. to 522-4 Yonge St., the former home of Central Sales and Service. They will have better facilities for handling service, and expect to carry a full line of cars.

A. Collins, recently of W. H. Lee Ltd., is now selling the Wills Sainte-Claire car at 197 Victoria St., having joined the staff of Isbell.

HULL:—United Garage and Construction Co., Ltd., has been incorporated with a capital of \$50,000.

#### SASKATCHEWAN

REGINA:—The Western Cycle and Motor Company, are occupying new quarters in the new Davin Building just completed at the corner of Hamilton and Davin streets.

#### YEAR'S TIRE PRODUCTION

LATEST statistics of the year's total tire production for the U. S. and Canada, place the figure at 36,000,000. This far exceeds the predictions made earlier in the year. At the beginning, the most conservative estimated production as low as 26,000,000 and certainly not above 28,000,000. Even the most optimistic halted at 33,000,000.

During one month of the summer the Akron district alone turned out 2,750,000 tires. Tire men claim that the volume of production for several recent periods has exceeded anything for like periods in the past.

#### DURANT TO BUILD ANOTHER FACTORY

WITH orders on its books for more "Star" cars than it can build in the next fourteen months in spite of its production schedule of two hundred and thirty-one thousand "Stars," Durant Motors Inc., is taking steps to increase its manufacturing capacity and announces that a contract has just been signed for the immediate erection of another million-dollar factory in Flint, Michigan, to be devoted exclusively to the manufacture of "Star" cars. The new Flint plant will be a duplicate of the plant now in process of construction there for the Flint Motor Company.

The two Flint plants now under contract when operating at capacity will provide employment for eight thousand men. "Star" cars are now being manu-

factured in Durant plants at Long Island City, New York; Lansing, Michigan; Oakland, California; and Leaside, Ont.

#### W. E. FINNEGAN WITH BEAVER CORPORATION

W. E. FINNEGAN, formerly director of sales of the Ruggles Motor Truck Co., has joined the Beaver Truck Corporation in a similar capacity.



W. E. FINNEGAN.

Mr. Finnegan is an outstanding figure in the automotive sales and advertising field. In his capacity as director of sales for the Beaver Truck Corporation, he will direct the sales efforts in the export as well as in the domestic field.

#### GENERAL ELECTRIC CO. MAY LEAVE TORONTO

CANADIAN General Electric Company may move their plants from Toronto to an outside centre, where their operations may be carried on to more economic advantage. The Toronto plants represent an investment of more than one million dollars, and in normal times they employ four thousand men. Peterborough, where the main manufacturing plants of the company are located is making a strong bid for the Toronto branches.

#### A VALUABLE GARAGE KINK (Continued from page 34)

the mud and dust; then when dry, the leaves should be pryed apart with a screwdriver or spring spreader and oil or oil and graphite forced between. There is no danger in getting too much lubrication, though it must be remembered that one drop between leaves is better than ten on the floor. A simple way, and quite effective, is to "paint" the leaves with a brush dipped in oil.



This illustration shows one of the largest scintillating electric signs ever erected in Canada. It was erected by the Prest-O-Lite Company of Canada across the Bloor Street viaduct, Toronto. Thirty-two concrete piers are required as a base for the sign and each one of these piers is built of a ton and a half of solid concrete. The structural steel weighs 14 tons, exclusive of the battery, which weighs 1,200 lbs., and the letters, which weigh two and a quarter tons. More than 9,000 feet of copper wire is required to carry the electric current to the 1,750 electric light bulbs which illuminate the sign. The sign is 60 feet long and 30 feet high. It is of the scintillating or intermittent flashing type. The battery, which is 15 feet square, is illuminated by indirect lights requiring lamps of 2,000 candle power. The operation of the sign is startling and decidedly attractive. The terminals of the cables glow red and then short-circuit, the sparks flashing out in a spray of fire. This occurs twice, then the word "Prest-O-Lite" flashes into view in a vivid white radiance. The letter "P" is fifteen feet high, which gives another idea of the size of the sign. Then in turn the other words flash on until the whole sign is lighted. This action repeats every 20 seconds. It requires 22 electrical contacts to complete the operation of the sign, which gives some idea of the intricate electrical mechanics required to control the lighting system.





Making things hum at the store of Geo. Fox & Sons, Platteville, Wis.

## **"The Selling of De Laval Separators and Milkers has grown to be the most pleasant phase of our business"**

*—Fischer Harness and Vehicle Co., Joplin, Mo.*

These people go on to say:  
"We are very gratified to note our percentage of gain over last year, which is much larger than we had anticipated. We are now of the opinion that we have underestimated our ability to sell separators and milking machines, and we are not going to be satisfied until we have placed De Laval Separators and Milkers in every home in our district where there are dairy cows."

Perhaps you, too, are under-estimating your ability to sell De Laval Separators and Milkers. Wherever there are cows, there you will find a market for the De Laval line every day in the year.

---

### **Why Dairying**

1. The most profitable way to market crops.
2. A cash income every day in the year.
3. Removes less soil fertility.
4. Consumption of dairy products is increasing.
5. Pays the farmer best.

---

### **Why De Laval**

1. The most in use.
  2. The most efficient.
  3. The most widely advertised.
  4. The quickest turnover.
  5. The most profit for the dealer —the greatest satisfaction to the user.
- 

Dairying has paid and will continue to pay better than any other branch of farming, and for this reason the sale of De Laval equipment during the past year has been especially good. De Laval Separators and Milkers not only bring you more direct profit, but indirectly they create good will and bring you business in other lines, just as Guy H. Newbold, of Robinson, Ill., says: "Your line has been one of the largest factors in bringing our business up to its present volume and we hope to continue to name it as one of our quality lines."

If we are not adequately represented in your community, why not let De Laval help you to more business and greater profits?

## **THE DE LAVAL COMPANY, LIMITED**

MONTREAL PETERBORO WINNIPEG EDMONTON VANCOUVER



Sooner or later you will use a  
**De Laval**  
Milker and Cream Separator





*The  
Better  
Wheel*



*The  
Wheel of  
Metal*

## It is Indestructible

Each year marks the introduction of new departures which make the automobile safer and more convenient. Engines, tires, starters and the general design and equipment of all cars are different and better to-day. Improvement in automobile wheel construction has probably lagged behind other elements of car design—but improvement has finally come. This improvement is seen in the

## Kemp Metal Auto Wheel

This wheel is made of extra strong steel and is light in weight and has been designed to withstand shocks, and wear and tear, under which any wooden wheel would collapse.

The Kemp Metal Auto Wheel will not break or bend. It has been put to the severest tests an automobile may be subjected to—and it has

never failed to come through without injury. The wheel has all the advantages of a wooden wheel in addition to being indestructible.

Such a wheel as the "Kemp" is destined to become universally popular. Many cars are now equipped! There will be thousands of others, and you should be interested in securing the agency for these wheels!

*Write for Information Today*

## The KEMP METAL AUTO WHEEL CO.

LIMITED

LISTOWEL

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# Canadian Automotive Trade

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TORONTO, DECEMBER, 1922

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*Interlocking-Joint, 90c*



## Servus

*Step-Cut, 45c*



First place in sales of patented piston rings is held by Gill *Interlocking-Joint* Ring. Millions of these famous rings in use have proved their ability to hold tension and to resist wear.

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Canadian Manufacturers

**BROWN ENGINEERING CORPORATION, LIMITED, TORONTO, ONT.**

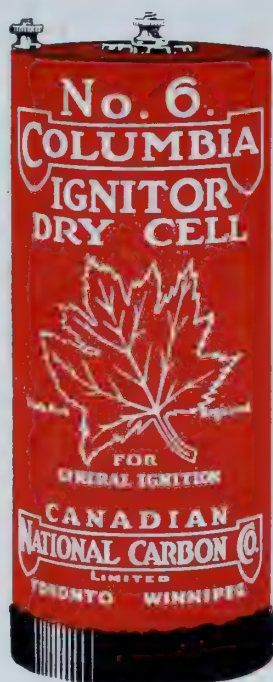
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Branches throughout Canada.

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THE GILL MANUFACTURING COMPANY,  
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# The Columbia Family



*Here they  
are:*

Columbia "No. 6" — A single cell unit for general ignition, buzzers, telephones, etc.

Columbia "Bell Ringer" the handy two-cell package for ringing doorbells.

Columbia "Hot Shot" for tractor and gas engine ignition, portable lighting, etc.

Columbia "Multiple" for motor boats and general marine work.

The right dry battery for every need is the Columbia policy. No job that a dry battery can do, from ringing a doorbell to firing a dynamite blast, has been overlooked in the making of Columbia Batteries.

Battery users appreciate this attention to their needs. That's why there are more Columbias sold than any other make of dry batteries in the world. And **that** is why every live dealer gives the Columbia family a prominent place in his store and show-window.

Place an order to-day with your jobber. Our big 1923 advertising campaign will be starting soon.

Canadian National Carbon Co., Limited  
Montreal      Toronto      Winnipeg

# Columbia Dry Batteries

— they last longer



# This Way to Better Business

**F**ARMERS of the better class, the real go-ahead, ambitious fellows, sooner or later buy the best equipment the market affords. In no other way can they maintain their standing among successful farmers.

Look around you and see how the number of these farmers is constantly increasing. The market for highly efficient machinery is growing better, year by year, in every farming community.

This condition is creating a new and better market everywhere for Case Power Farming Machinery. Case machines meet the requirements of the most exacting buyers. Their mechanical superiority is known to these farmers. They have a well established reputation for efficiency and dependability that makes them the first choice of progressive farmers. The Case dealer is thus able to get and hold the most desirable, most profitable trade in his territory.

A contract to sell Case machinery is worth more today than ever before. Also, it increases in value with every Case machine sold and with every forward step that agriculture takes.

Men who like to sell, and who realize their responsibility to the progress of farming, are the men this Company wants as dealers. For these men we have a proposition that means sure and better profits. Write today for information about the new Case Dealer's Agreement.

**J. I. Case Threshing Machine Company**

(Established 1842)

Dept. A-216

Racine

Wisconsin

Factory Branch: Toronto, Ontario

**CASE**  
TRADE MARKS REG. U.S. PAT. OFF. AND IN FOREIGN COUNTRIES.  
**POWER FARMING MACHINERY**

NOTE: We want the public to know that our plows and harrows are NOT the Case plows and harrows made by the J. I. Case Plow Works Company.



*The yield and quality of all crops depend upon good plowing. More timely plowing and better work is possible with Case farm tractors.*



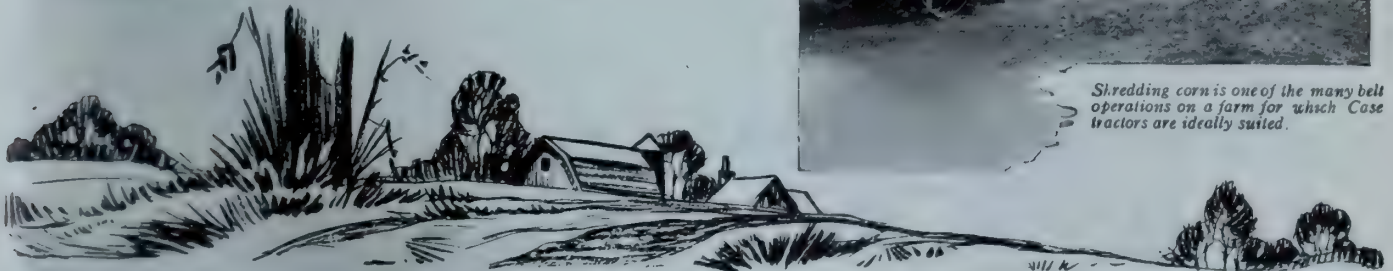
*Disking completely unites plowed soil with sub-soil, while fender pulverizes and packs seed bed. A perfect seed bed in one operation is easily accomplished with a Case farm tractor.*



*Threshing when the grain is in prime condition makes it grade higher and bring better prices. This makes a Case outfit profitable.*

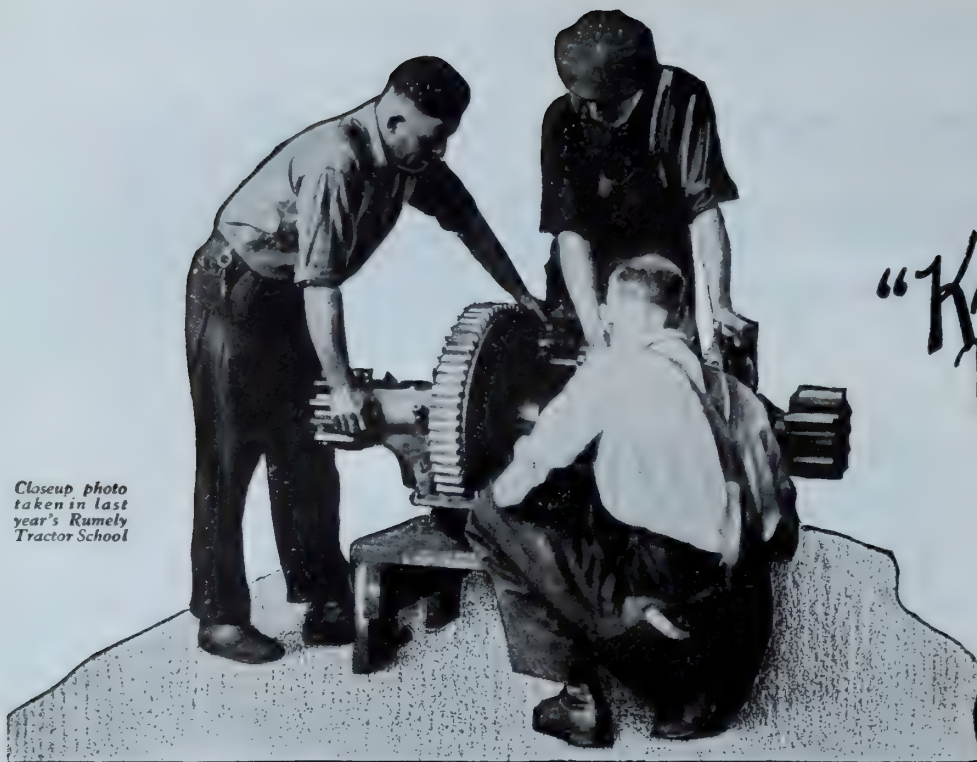


*Shredding corn is one of the many belt operations on a farm for which Case tractors are ideally suited.*





Closeup photo  
taken in last  
year's Rumely  
Tractor School



*"Know  
Your  
Tractor"*



## "KNOW YOUR TRACTOR" —The Secret of Bigger Profits

**W**HY take years to learn the tractor business? In *one short week* you get a broad, intensive training at the Advance-Rumely Dealer's Tractor School—a training such as money could not buy elsewhere. You learn to actually "know your tractor." You get the secret of bigger profits.

At the school you find two divisions of work—classroom and laboratory. In the classroom you listen to men of the highest calibre. They give you first-hand information on OilPull Tractors, Rumely Ideal Threshers, Rumely Trucks, etc. Also latest ideas on advertising, selling and other vital subjects. You become a better salesman, learn to advertise more effectively, broaden your business horizon. In the laboratory you tear down and assemble OilPull motors and transmissions, learn to time valves, lo-

cate and correct troubles, etc. You get facts that give you confidence—that help you get the confidence of customers.

The school is a five-year success. Over 2,400 "graduates" give enthusiastic proof of its benefits. In fact, the dealers who attended one year did an average of **THREE TIMES** more business than those who did not. One dealer writes: "All sales this year have resulted directly from the school." Another writes: "Since attending the school, I have sold 8 out of 9 tractors bought for road work in this section." Another: "We consider the training of priceless value."

### Mail the coupon

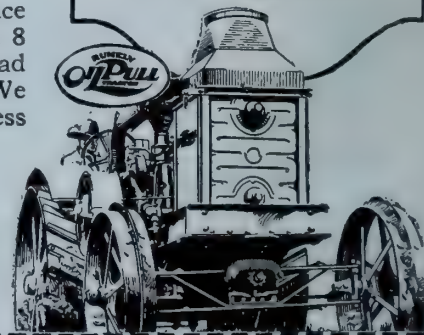
Get the entrance requirements now. Learn how any Rumely or other dealer may easily and inexpensively attend. Send the coupon at once.

Advance-Rumely Thresher Co., Inc.

Winnipeg, Man. Calgary, Alta. Regina, Sask. Saskatoon, Sask.

### Advance-Rumely 1922-23 TRACTOR SCHOOLS

Dallas, Texas  
December 18th to 22nd  
Wichita, Kansas  
January 2nd to 6th  
Kansas City, Missouri  
January 8th to 12th  
Omaha, Nebraska  
January 15th to 19th  
Des Moines, Iowa  
January 22nd to 26th  
La Porte, Indiana  
January 29th to February 2nd  
La Porte, Indiana  
February 5th to 9th  
Madison, Wisconsin  
February 12th to 16th  
Minneapolis, Minnesota  
February 19th to 23rd  
Aberdeen, South Dakota  
February 26th to March 2nd  
Fargo, North Dakota  
March 5th to 9th



*Fifth  
year—*

# ADVANCE-RUMELY DEALERS TRACTOR SCHOOL

Advance-Rumely Thresher Co., Inc.  
Address Nearest Branch

Gentlemen: Please give me, without obligation, complete details of the Advance-Rumely Dealer's Tractor School—and tell me how I may become eligible to attend.

Name .....

Town .....

State..... County.....



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# Canadian Automotive Trade

Vol. 4

DECEMBER, 1922

No. 12

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### THE MACLEAN PUBLISHING COMPANY, LIMITED

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SUBSCRIPTION PRICE—Canada, \$2 a year; United States, \$2.50 a year. Invariably in advance.

## The Value of an Inquiry

IT IS utterly impossible for anyone to judge the value of an inquiry. The most intensive "follow up" may only result in a small initial order, but the dealer who places the smallest initial order may develop into the largest customer on the books.

An inquiry may be but the first link in a long chain of steady sales to a satisfied customer, and it should be answered promptly and intelligently.

### The Result of One Inquiry from a Jobber

Last year a manufacturer of automotive equipment ran an advertisement in one of the automobile Trade publications. He received a reply from one of the largest jobbers in the United States, from whom his salesmen had tried to get an order for more than three years.

The manufacturer had bombarded the jobber with correspondence and his salesmen had called on him frequently, but for some reason or other he was unable, either through personal salesmanship or correspondence, to interest this particular jobber in his products.

His advertisement, however, brought "a voluntary inquiry" from this jobber, and he has since developed into a very large buyer of the manufacturer's products.

Why this business connection was established through an advertisement, rather than as the result of the calls of salesmen or correspondence from the factory, it is impossible to say. It is obvious, however, that the advertisement was a very profitable one for the manufacturer, since it brought him at least one very large customer.

### The Result of One Inquiry from Australia

A manufacturer received an answer from one of his advertisements from a concern in Australia. After considerable correspondence an appointment was made to meet the manufacturer in Chicago, and the representative of the concern in Australia gave him a large initial order. This business connection has continued for several years with the most satisfactory results, and has been highly profitable both to the Manufacturer and the Distributor.

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FRANK M. COMRIE COMPANY



HALL GEAR & MACHINE CO.  
LIMITED  
15 DUNDAS STREET WEST  
TORONTO, ONT.

DETAILS:

- A—SPRING ADJUSTING SCREW UNDER BALL JOINT B.
- B—BALL JOINT AND INTERCHANGEABLE STEM TO FIT ELECTRIC DRILL.
- C—PARALLEL HINGED STONE CARRIER.
- D—SQUARE CARBORUNDUM GRINDING STONES.
- E—SHOWING ONE OF FOUR CANTILEVERS ALL OPERATED BY ONE SPRING IN CENTRE OF BODY.
- F—HINGE FOR STONE CARRIERS ALLOWING STONES TO BE COMPRESSED TO SMALLER DIAMETER.
- G—STONE-HOLDING SCREWS.

MADE IN TWO SIZES:

- $2\frac{3}{4}$  TO  $3\frac{1}{4}$  . . . . \$70.00
- $3\frac{3}{8}$  TO  $4\frac{3}{8}$  . . . . \$75.00

PATENT APPLIED FOR  
MADE IN CANADA

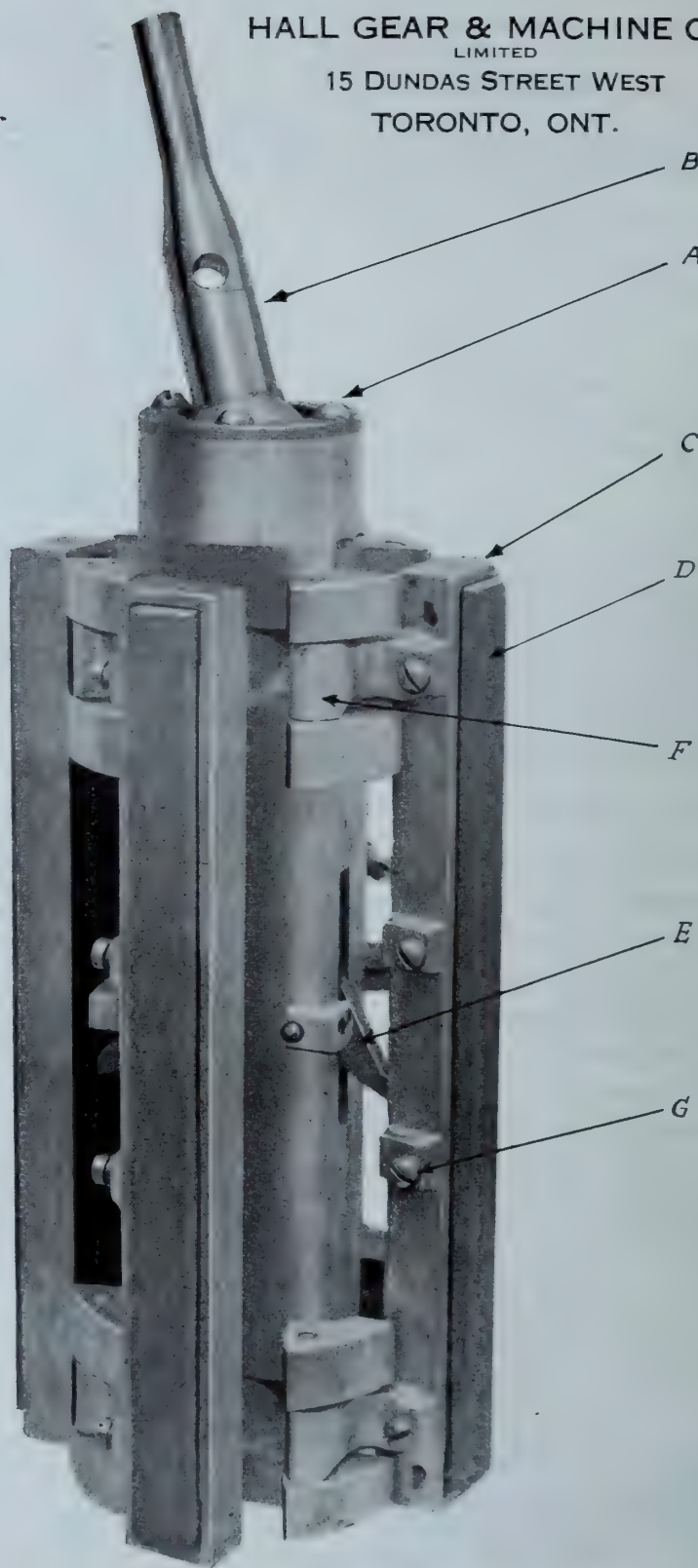
Grinds cylinders in or out of chassis by attaching to electric drill or drill press.

No adjustment necessary other than tension spring.

Four cylinders reground parallel by ordinary mechanic in an hour.

Half length stones furnished for roughing out taper, full length stones for finishing.

Manufacturers of  
**SILENT TIMING  
GEARS**



# HALL'S CYLINDER HONE

*"The Tool You Have Been Waiting For"*

**ORDER FROM YOUR JOBBER TODAY**



# Canadian Automotive Trade

VOLUME 4

TORONTO, DECEMBER, 1922

NUMBER 12

## Make 1922 A *Real* Automotive Xmas

Last Call! Those Who Are Going to Make Profits From An Automotive Christmas Must Start Now. Get Your Guns Ready, Your Advertising Display, Christmas Atmosphere, and Consult Your Jobber To-day

**A**RE you ready for the Christmas business?

Have you planned your merchandising campaign?

Is everything in shape? Your window display; your Christmas atmosphere, your advertising?

Are your salesmen primed to put the idea over with a bang?

If not, there is no time to waste. Christmas is almost here and thousands are, at this moment, making up their lists, or endeavoring to. Will any effort of yours help them and will your accessory sales be materially increased by your efforts?

The idea of Christmas merchandising of automotive equipment has taken hold in every part of Canada. Dealers in every district are determined that a large proportion of gifts bought will be "something for his car." You can share in the profits of this business, but you must start NOW.

Christmas is more than a holiday or a season. It is a spirit of good fellowship that has found expression in the giving of gifts and this spirit has been represented for centuries by holly, mistletoe, evergreen or in fact any combination of the colors red, white and green.

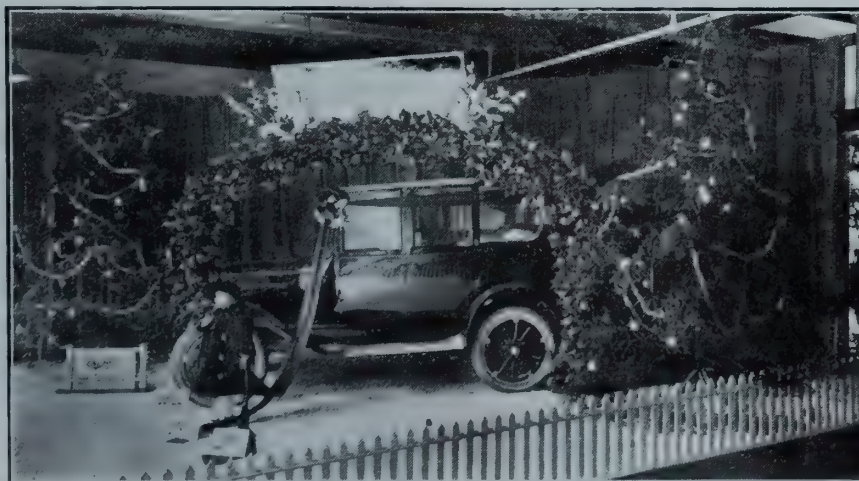
Business men in other industries have appreciated this factor as a tie up and as Christmas approaches each year these merchants trim windows, wrap and decorate their merchandise with the popular Yuletide colors so that for years people have bought the same old things for Christmas gifts.

Look over your equipment stock with a view to selecting items suitable for

Christmas gifts and you will find a surprising number of them that can be made to fit into the Christmas merchandising scheme and will be welcomed as Christmas gifts by a public already well supplied with handkerchiefs, books, off-brand cigars, manicure sets and the thousand and one types of novelty goods that make their appearance at the foot of the Christmas tree, year after year, only to be forgotten and discarded before father has broken his New Year's resolutions.

One of the most powerful factors in bringing Christmas business to a garage or accessory store and one which has been well emphasized in Canadian Auto-

motive Trade, is a well trimmed Christmas window. This is very easy to set up and need not be at all expensive. A small Christmas tree, some tinsel, some red, white and green crepe paper and, if desired, a little imitation snow are the only properties required for the setting up of an excellent Christmas window in which can be displayed heaters, sets of tools, spotlights, stop lights, motor meters, hood covers, chains or any article of equipment that can be wrapped up in holly wrapping paper and tied with red string so that it looks like and really is a regular, useful and extremely desirable Christmas present for anyone owning or operating an automobile.



This window attracted much attention last Christmas. It was a display of the Willys-Overland Toronto branch. Any dealer can arrange a similar window with little difficulty and not much expense.





This is a Christmas display set up by Cutten and Foster to act as a pattern to their salesmen and through the salesman to the dealer. A display such as this cannot fail to impress customers who come into your store. Little expense is involved, all that is necessary being two small trees, a little holly and some colored paper. The equipment does the rest.

Display in your windows and throughout the shop a sign bearing the inscription, "GIVE AUTOMOTIVE GIFTS FOR CHRISTMAS." In most cases these signs, together with supplies of Christmas cards and Christmas wrapping paper can be obtained from your jobbers. Write for them to-day.

Many manufacturers are supplying Christmas boxes and display cards to be used in adapting their merchandise to this Christmas business. If, after Christmas, the dealer has any of these Christmas articles left all that is necessary is to put it back into the ordinary packages.

Shop work can also be sold as Christmas presents. Cards printed in red and white or green and white with a holly border can be used in the presentation of any repair job upon which a flat price can be quoted. They should be made to read something as follows:

WITH THE SEASON'S GREETINGS  
We have been ordered by .....  
(name of donor)

To .....  
(Paint, overhaul, etc.)  
your ..... sedan anytime between  
(name of car)  
now and March 15.

This card can be changed to meet individual requirements of the different organizations.

A circular letter can be sent out to the home addresses of customers and will be found in many cases to be productive of repair jobs on this basis. These letters should be prepared now and can also be used to call the atten-

tion of families owning one or more cars to the fact that many articles for the car make suitable and useful Christmas presents.

Shop work can also be secured by selling the job of attaching articles that are purchased for Christmas presents. One very effective way of accomplishing this is to have a card with spaces for the names of the donor of the gift and the person to whom it is being presented. At the bottom can be printed: "This article will be attached free of charge by (the dealer's name)."

Christmas displays, Christmas decorations and Christmas windows will give any garage or equipment store an atmosphere that will impress upon car owners and the public in general a fact that very few of them have ever realized that automotive gifts make very desirable Christmas presents, and all that remains is for the dealer to Ask 'Em To Buy.

Thousand of people are already making up their Christmas lists and the

(Continued on page 37)



A Christmas window used by a live dealer last year. A display such as this can be set up by any dealer at practically no expense.





Mr. Dealer:- "This is my idea of an Automotive Christmas Window"



# A. E. A. Convention Was Big Success

More Exhibits and More Actual Business Transacted at A. E. A.  
1922 Show Than Ever Before. Merchandising Was Keynote.  
New Canadian President Elected

**W**HEN jobber members of the Automotive Equipment Association insisted on a closed show for 1922, there was widespread doubt as to the soundness of their arguments, especially on the part of the manufacturer members. But 1922 was a closed show. It is now history, and everyone is in a better position to judge it in a collected manner.

The show was held in the Chicago Coliseum during the week of Nov. 13-18, and it is generally agreed that it was the biggest and most profitable show ever held by the association. More actual business was transacted, there were more exhibits than ever before, and, taken as a whole, it was the best arranged and most complete exhibition of the industry's products. The total attendance was, of course, considerably smaller than previous years when the show was open, but the jobbers accomplished what they had set out to do, namely, have an opportunity to go over the lines thoroughly and be able to trade with facility, something that they were unable to do last year owing to the enormous attendance of non-member jobbers and others. Last year the aisles were packed at every turn, and once you lost a man it was almost impossible to find him again.

This year the aisles were comparatively clear and it was possible to do business with greater dispatch, and with a clearer idea of the product purchased, and what could be done with it. Insofar as this phase of it is concerned, the closed show idea worked out to the entire satisfaction of the jobber members. But unfortunately it doesn't give the manufacturer quite as nice a deal. He is forced to forego the interest, and to neglect the purchasing power of the non-member jobbers, and he cannot subsist on the business he secures from his fellow members alone.

During the meetings, there was evi-

dence that it would not take much to split the two factions on this issue. The jobbers wanted the closed show idea continued next year. The manufacturers were strong for the abandonment of the idea entirely, and insisted that non-member jobbers be admitted. Feeling ran pretty high for a couple of days, but the jobber members brought forward a compromise idea that saved the day and resulted in complete harmony thereafter. The compromise consists of a plan to admit non-member jobbers invited by the board of directors. Manufacturers are to submit the names of jobbers they wish to attend the show. The board of directors is to pass on these lists and issue invitations to those approved. This means a closed show with sufficient restrictions to warrant satisfaction to both jobbers and manufacturers. It is far better than getting back to a completely open show again, because that is unfair to everyone. It

jobbers who have a right to be there will be admitted.

There was some feeling among the Canadian manufacturers this year, that members of the Canadian association should be admitted to the shows regardless of their status as members or non-members of the A. E. A. Canadian members, generally, are not in a position to benefit from the activities of the association in this country, and yet they are big potential and actual buyers, and have their own association affairs to keep them busy. However, the present arrangement will permit Canadian jobbers who are not members of the A. E. A. to attend the shows, and that should be entirely satisfactory.

## Merchandising Was Keynote of Convention

The approval of the compromise referred to resulted in a series of very profitable and harmonious sessions, and



The Automotive Equipment Show held in Chicago was the best arranged and most complete yet held. This illustration gives a bird's eye view of the exhibits.

results in such a huge attendance that no one is able to transact business. And the member jobbers certainly have a right to examine the products of their fellow members in a leisurely manner, and not be forced to rush through with a transaction merely because a lot of non-member jobbers are crowding him out on space and time. The arrangement ought to work out satisfactorily for everyone, and it virtually means that all

is bound to lead to greater co-operative endeavor. Both manufacturers and jobbers gave new support and endorsement to the merchandising plans of the organization. In fact after the closed show difficulty had been ironed out, merchandising was made the keynote of the convention, and was everywhere stressed as the big thing in promoting the welfare of all members, individually and collectively.

Nelson H. Oliver, the newly elected



president, in his address, referred to merchandising as the predominant task of the industry and appealed to members to concentrate their energies on merchandising work, for the greater profit of all. Members agreed in large numbers to get actively into the merchandising campaign headed by Ray W. Sherman. The convention left the association stronger than at any other time in its history, and there was approval everywhere of the suggestion of Howard M. Dine, retiring president, that less emphasis should be laid on the difference between manufacturer and jobber members, and that all be regarded as just members, working for the common good. **"Ask 'Em to Buy" Campaign Given New Impetus**

The merchandising campaign, which has been in progress for 16 months, with real support by only a minority among the membership, was given new impetus through a "testimonial hour" during one of the general sessions. A number of jobbers told of increased sales of equipment running as high as hundred and two hundred per cent. as a result of sales promotions and co-operation with their dealers. Among those contributing to this session was L. A. Cavanaugh, of the Motor Car Supply Co. of Calgary and Edmonton. Mr. Cavanaugh said that results were already apparent from the meetings that had been held in Western Canada only a few weeks ago. "Ask 'em to pay" suggestions, he said, had been particularly helpful to dealers who had tied up their credit with too ready accommodation of customers.

Ray Sherman's recommendation to jobber members was for a campaign to assist dealers in building up their automotive equipment business. He urged that every jobber's sales manager arrange with his salesmen to select one dealer each as a likely prospect for intensified assistance over a six months' period beginning December 1st. The salesman would pay special attention to this dealer's work, helping him to select seasonably salable merchandise, display and demonstrate it, and ask motorists to buy it. Mr. Sherman said that if

one thousand of the four thousand jobbers' salesmen representing houses that are members of the A. E. A. would adopt the plan, he believed the aggregate increase in business on the basis of a \$1,000 minimum gain for each dealer, would be \$1,000,000. He suggested as the slogan for this campaign, "one salesman, One Dealer, One Million Dollars." The suggestion met a hearty response in the jobbers' meeting and a majority of the sales managers present said they would make the attempt.

Mr. Sherman's address to the manufacturers' divisional meeting included a request for the support of sales executives to emphasize to the retailer how he can make profits selling or using the manufacturer's equipment. He made a special plea that every manufacturer get out at least one piece of illustrated or printed matter within the next six months, devoted to this idea. He pointed out that manufacturers cannot expect to reap the benefits of the merchandising campaign by letting the job-

bers do all the work. He gave several instances of definite profit to manufacturers who had issued advertisements and direct mail matter telling the story of dealers' profit in handling an item of equipment, or how the use of a certain piece of shop equipment had built profits.

#### Relief for Canadian Jobbers

The manufacturers' division recommended to individual members that refunds for defective goods shipped to Canadian jobbers be based on the laid down price in Canada, that is the price including the duty. Canadian jobbers have complained of the burden of bearing the customs charge in case of these refunds, a condition which naturally has worked to the advantage of Canadian manufacturers competing with American makers of several automotive lines.

#### Christmas Sales Promoted

The A. E. A. Merchandising Department got attention for its slogan, "Let's Make This an Automotive Christmas."

by dressing an automotive equipment Christmas window, which stood at the front of the convention hall, by using a decorated Christmas tree in its exhibit and by hanging one of its red, white and green slogan cards in every exhibit.

There were many exhibits which had demonstrations as well as displays of their products. Quite a few used miniature movies to illustrate the utility and salability of their merchandise.

Mr. Sherman gave space also to copies of Canadian Automotive Trade, and the cards prepared by this paper for use among dealers in Christmas windows. He was delighted with the manner in which the Canadian Association had gotten behind the Christmas idea, as evidenced by their two-page spread advertisement in the November issue of Canadian Automotive Trade. He stated, too, that Canadian Automotive Trade had put forth the biggest individual effort on behalf of this scheme, of any publication on the continent.

#### Exhibits Attractive

In addition to being the largest show yet held by the A. E. A., this year's business ex-



ALEX. MCKENZIE

Alex. McKenzie, of Canadian National Carbon Co., was elected president of the Canadian Auxiliary of the Automotive Equipment Association, at the Chicago Convention. Mr. Keyes of the Keyes Supply Co., Ottawa, was elected vice-president.



hibit was the most attractive. With 215 manufacturers exhibiting, the demand for space was so very great that it was necessary to cut down the allotments of the larger exhibitors from four to three and three to two spaces, and there were indications that, if the exhibit goes next year, as it did this, it will be necessary to engage the armory next to the Coliseum and place some exhibitors there, unless a contemplated second floor is built in the Coliseum.

There were numerous exhibits with a high degree of merchandising development in their arrangement. Numerous manufacturers plainly had spent many hundreds of dollars in special display backgrounds, stands and showcases, some of which not only invited the attention of jobbers but contained suggestion for jobber displays to sell retailers and dealer exhibits to win public attention.

Delegates, alternates and guests realized almost as soon as they had stepped inside the Coliseum that this was the best show staged by their association.

#### Good Business Show

Even with the restricted attendance of jobbers under the closed show rule, the exhibit was quite generally conceded a better business show than the ones of 1921 and 1920. The smaller attendance gave a greater opportunity for conferences between manufacturers and jobbers and their representatives. The jobbers, because they had initiated the closed show decision, apparently went out of their way somewhat to listen to the sales talks of the exhibitors and, in some cases, to sign distribution contracts and place orders. The bulk of business done, however, and the interest shown by jobbers was not based on sentiment but on the confidence expressed by the majority of jobbers that the gains in business during the past few months are to be continued through 1923.

A few manufacturers complained of light patronage but just as many reported business written far in excess of last year. The bulk of the exhibitors united in terming the show the most successful the association has held.

#### Business Conditions Checked

Allowing for the normal seasonal decline, conditions are improving steadily in nearly all sections of the country. Some of the Rocky Mountain States and a section of the Southwest are still suffering from restrict-

ed credit and jobber business has been poor because of dealers' inability to finance purchases either of shop equipment or accessories. In other sections jobbers are still finding it necessary to

ship goods C. O. D., and some business is lost because dealers and garagemen will not buy under this requirement, but generally throughout the country dealers are getting results in "asking 'em to pay," and business this fall is much better than a year ago.

The general run of jobbers at the convention had done 10 to 30 per cent. more business, in tonnage, this year than in the same period of 1921. This gave them a dollars and cents result about equal to last year's and in some cases considerably better. Purchases of garage equipment have been on the up-grade for several months.

#### Next Meeting in New England

The A. E. A. having held its summer meetings in various sections of the country, including the Pacific Coast, Rocky Mountains and Middle West, decided to go next summer to New England, meeting June 25 to July 1 at the Balsam House, Dixville Notch, New Hampshire. This resort, in the White Mountains, is about 240 miles from New York and 15 miles from the Canadian border. It is reached by train or motor car. It was selected after a survey of New England hotels by Frank T. Chase of the Frank Mossberg Co., North Attleboro, Mass., representing the board of directors. It will accommodate the 600 or more delegates and their families.

#### New Directors

Nine directors were elected, one to fill a vacancy and eight to fill expired terms. They are: Nelson H. Oliver, Metal Specialties Mfg. Co., Chicago; Wallace G. Page, American Motor Equipment Co., Boston; G. H. Southard, Jr., J. & B. Mfg. Co., Pittsfield, Mass.; C. J. Hillis, Electric Appliance Co., San Francisco; R. J. Cahall, Cahall Motor Supply Co., Philadelphia; F. B. Caswell, Champion Spark Plug Co., Toledo; N. F. Ozburn, Ozburn-Abston & Co., Memphis; A. H. Bowman, Bowman Bros. Ltd., Saskatoon, Canada; Percival Stern, Interstate Electric Co., New Orleans.

Hold-over members of the board are: C. L. Stebbins, Double Fabric Tire Co., Auburn, Ind.; W. H. Parkin, National Standard Co., Niles, Mich.; S. D. Black, Black & Decker Mfg. Co., Baltimore, Md.; W. E. Wissler, Herring Motor Co., Des Moines; D. A. McConnell, Klaxon Co., Newmarket, N. J.; H. H. Reinhard, Reinhard Bros., Minneapolis; E. V. Hennecke, Moto-Meter Co., Inc., Long Island City, N. Y.; B. L. Clem-

(Continued on page 36)

### Sidelights from the Show

It was a closed show, but not a dry one.

Frank Welch bought a new white hat—all right for a young fellow like Frank but we couldn't wear it.

Everyone asked: "Where is Mr. Moncur?"

Bob Somerville promised us one of the nifty Black & Decker souvenir pipes. He must be keeping it for Christmas.

When does the Eighteenth Amendment become effective?

It took a lot of wheedling to secure a cane from the United States Air Compressor man. He said they were just for jobbers. The jobbers we know don't need 'em.

Everyone knows Mr. St. Mars by his first name.

H. L. MacMillan must be making money. Mrs. MacMillan and the baby have gone to California for the Winter.

The good looking chap with the Champion Spark Plug delegation was their Winnipeg district sales manager.

Going over there were suspicious looking bulges on every hip. Hip, Hip, Hurrah!

Boy! Page Gordon Edgecombe.

Something seemed to attract the Canadians to Peacock Alley—probably the music. Among others noticed were Messrs. Archie Bennett and A. J. Hopkins.

They say the new skirts make the women look longer, but the men don't look so long.

Mr. Banfield of McQuay-Norris-Banfield, presided at the meeting of the Canadian Association.

Tommy Bellisle of Cutten & Foster, says he worked all the time.

Mr. Drayton headed the big Canadian Fairbanks Morse delegation.

Mr. McKenzie will make a good president for the Canadian A. E. A. and will have the able co-operation of Mr. Keyes of Ottawa, as vice-president.

The Westerners were there in force. We saw the Bowman brothers, Mr. Dickson, of Burd Ring Sales of Winnipeg, Mr. Cavanaugh of the Motor Car Supply Company, Calgary; Joseph St. Mars, of Winnipeg; Bob Kingsbury, of Canadian National Carbon Company, Winnipeg, and others.

Mr. St. Mars hurried back to Winnipeg to meet the stork. Congratulations and best wishes for the young son.

Mr. Millen was always interestedly busy among the exhibits and attending the meetings.

A. H. Frazer went on from the show for a trip through the West.

The Canadian National Carbon Company had the only Canadian booth at the show.

Mr. O'Donnell of Ray Sherman's staff is a former Canadian.

Mr. Sam Ryder, of Motometer, has been associated with the automotive industry for twenty something years (he doesn't look old enough) and was kept busy meeting old friends.

We also met Mr. Bottcher, of Hyslop Brothers, Mr. Hayes, of the Champion Spark Plug Company, Mr. Soulier, of the Canadian Lamp and Stamping Company, and Mr. Lambert, of Lamontagne, Limited.

And then we bought a box of candy for friend wife and something for the kids, and were glad to get home. But it was a good show.



# Says Jobber Necessary in Distribution of Automotive Equipment

Manufacturer Believes Jobber is Performing Service of Great Importance to the Retailer and Manufacturers of Equipment. Is Vital Link in Distribution and Promoter of Better Merchandising.

**W**HEN it comes to food products and some of the other necessities of life, I agree—and from the buyers' standpoint, mind you—that there should be practically an unbroken line from the producer to the consumer, or at least to his retailer, said T. E. Challenger, credit manager of the McCord Mfg. Co., Detroit, at the annual meeting of the Motor and Accessory Manufacturers' Association, held in Buffalo recently. From an economic standpoint alone this would be ideal and, I believe, more or less feasible. But with respect to countless thousands of other classes of manufactured products I very thoroughly and honestly believe that the so-called middleman or jobber, whom some are pleased to call an evil, is on the contrary a real necessity to practically all the manufacturers in our line; and that, much by the same token, he is a necessity to the dealer and consumer.

It is an obvious fact that there is a constantly increasing demand for replacement parts and accessories. The frequency of replacement is primarily dependent upon the nature of the part. Some, due to the use to which they are subjected, or inherent fragility, must be replaced several times a year, while others may last the lifetime of the vehicle, except in cases of unusual mishap.

## Broader Markets

This particular class of business now is greater in volume than the sale of new vehicles. Consequently, for many manufacturers, the replacement field presents a larger opportunity than does the equipment business of car manufacturers or engine builders.

Broadly speaking, I believe the parts maker for whose product there exists any considerable volume of business is losing a considerable and legitimate profit by confining his sales for service purposes exclusively to the manufacturers to whom his product is supplied for equipment purposes. Of the various channels of distribution to the retail trade, I think that only the manufacturer, with a huge volume of business, is justified either in establishing his own branches or selling direct to the retail trade. The exclusive distributor plan perhaps has some unique advantages, but usually results in restricted sale and consequently restricted service to the vehicle owner and has undesirable reactions in several directions. Therefore, for the

vast majority of parts manufacturers for whose products there exists a reasonably large volume of business, I believe the well organized, established and financed automotive equipment jobber offers the most economical, most substantial and most profitable method of distribution.

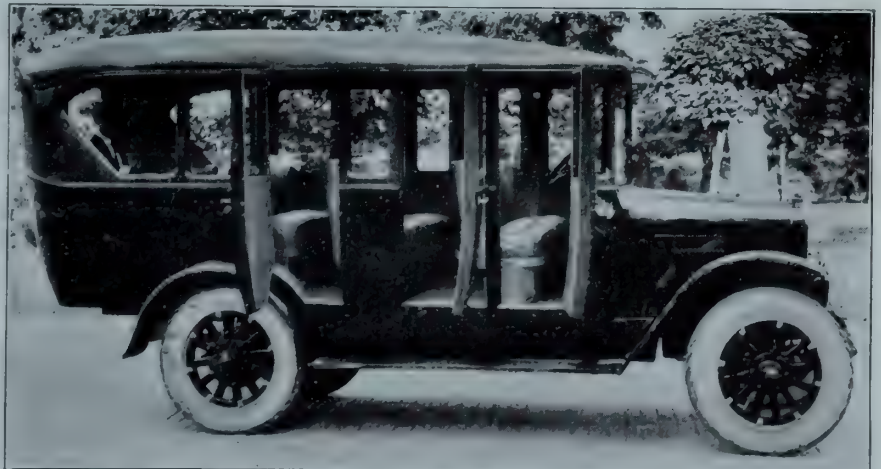
The automotive jobber now, figuratively speaking, acts as a purchasing agent for his retail customers as well as a warehouse and financier of the movement of merchandise from manufacturer to retailer. Consequently the jobber has many expenses in the conduct of the business and expenses that somebody must assume. Among them may be mentioned: stocking, inspection, investment, superintendence, distribution, untimely obsolescence and so on. So, as I see it, the manufacturer who sells the jobber eliminates most of the expenses and the dealer who buys from him secures service and many other obvious advantages not otherwise obtainable. So the name "jobber" is in fact only a name for a number of necessary functions in the distribution of merchandise. He may be dispensed with in name, but the functions which the jobber performs must be performed by someone, and it seems to be pretty well agreed that the jobber who is properly organized, properly financed, and experienced in his line of business can perform these necessary functions more cheaply and efficiently than the individual manufacturer can for himself.

Just now jobbers throughout the country are engaged in an active campaign

toward better merchandising. The "Ask 'em to Buy" and "Ask 'em to Repair" campaigns are being conducted largely through the jobbers and are making better merchants of the supply dealers. This also applies to the garage and repair man—also to the ultimate benefit of the accessory manufacturer. These campaigns also have been of very great benefit to the jobbers' sales organizations. Another of the results is that of the dealers tying themselves more closely to the jobber, who is teaching them better and more productive merchandising methods. These and similar campaigns and other good stimulants mean more efficient jobber distribution, increased business and more substantial accounts for the manufacturer.

I am not holding a brief for the jobber, but there are many good reasons why we should cultivate him and his trade and help promote his business, thereby promoting our own, and so few apparent or real reasons why we should not tie up with him, that it seems to me there is not much room for meritorious argument, except in a comparatively few cases.

I believe we should make the jobber, in a way, a part of our organizations. He is performing a real service, which is of great importance and value in the developing of our businesses. He is, broadly speaking, performing this service better and more economically than we can and will do it even better if we give him proper and substantial co-operation.



New International Speed Sedan, For a Description of Which See Page 24.





## This Garage Is Equipped For Service

The New Garage Built by Beach Motors, Ottawa, Ont., Has Many Striking Features. Twenty Individual Enclosed Stalls Provided for Use of Automobile Owners. Individual Lockers Provided.

A STRIKING addition to the automobile industry in Ottawa is the fine building built by Beach Motors, at Bank and Catherine Streets. It was erected under the direct supervision of Beach Motors, according to the designs outlined by several of those associated with the company.

The building occupies a large site lying between the railway line and Catherine Street and it was built into a slope of ground that adapted itself admirably to the construction of a two-story frontage with a large one-story portion at the rear so that not more than one short ramp is required for access to the second floor where various departments are located.

It has a frontage of 140 feet on Bank Street and a depth of 260 feet on Catherine Street, with 300 feet of land to the rear, has all facilities and conveniences for automotive purposes. There is the inside curved driveway, circling off Catherine Street, just back of the big showrooms, for the serving of gasoline from two, 10,000-gallon hydraulic flowmeters, each with a capacity of 30 gallons per minute. Another flowmeter on the outside will also serve gas to commercial vehicles. Lubricants are sold from separate enclosed room adjacent to the driveway, the latter accommodating six cars under cover at one time. The showroom is one of the largest in the city, measuring 130 by 60 feet, and gives liberal space for the display of various models. Provision is made for the building of a mezzanine floor for special offices, if desired in the future. The massive steel-concrete wall can also support three additional floors when required.

The second floor, which is reached by convenient stairs at the corner and by a short ramp at the back, accommodates the general offices and, in another section, the paint and varnish department and the top and body trimming department. The painting department has been made dustproof and is fitted with turntable for car painting jobs and three bake ovens.

The repair shop has a capacity for 20 cars and a feature of this department is a repair basin which is over-run by six channel tracks at floor level, to enable mechanics to reach underneath parts of any car without difficulty. Behind each car space on the repair floor and on the pit tracks is a fan ventilator with attachment to draw off all exhaust gases so that there is no danger from accumulated poisonous discharge. In conjunction with the repair department is a tool and machine shop for heavy work, an overhead trolley being provided for the carrying of engines, etc. Between the gasoline service driveway and the repair shop is the stock room which has a mezzanine floor for the stocking of bulky parts. A cashier's office overlooks the stock room and is also convenient for the garage at the rear. The storage garage, which has two driveways leading off Catherine Street and a third door in the back wall, has a capacity of 70 automobiles with two 16-foot aisles from end to end to prevent congestion. At the rear is to be found the tire vulcanizing and battery service department while an adjunct of the garage is a ladies' rest room and a gentlemen's club room. There are also two wash racks in convenient positions in the garage proper.

The whole building is steam-heated, the coal bins being located under the garage and the boilers, with down-draft fire boxes, under the repair shop. Coal is received into the bins by direct chute from cars on the private siding at the south of the building. Direct connection is also made between tank cars on this siding to the gasoline tanks. Steam jet appliances have been adopted for use in the body painting department to cut dirt, tar and grease from car surfaces. The garage, of course, is steam-heated and 20 individual enclosed stalls are to be provided in the garage for the private and exclusive use of automobile owners. Individual lockers are also to be placed at the disposal of owners of stored cars.

The structure is concrete, steel and brick throughout. Each department of the building is divided by fire-proof walls and fire-proof doors, a steel shutter being provided at the one ramp leading to the second floor.

Every up-to-date facility has been installed primarily for service to motorists. Day and night service has been established in the gasoline and oil division and arrangements have been made for 24-hour service in the repair department. The flat rate system of repairs on automobiles is being worked out.

O. A. Beach, the president and general manager of the Beach Motors, is a pioneer in the automobile business in Ottawa. Various department heads have also been identified with him for many years. The Beach company conduct a wide automobile distributing business in addition to local retail activities.



# Small Engine is Chief at London Show

A Number of British Makers Who Formerly Specialized on Large Cars Are Introducing Smaller Models. Many Four Passenger Cars With Engines of Less Than 120 Cu. In. Exhibited

**T**HE outstanding feature of the Sixteenth Annual London Motor Car Show is the large number of new models with four-cylinder engines of less than 10 cu. in. piston displacement, says Motor World. These new models are of the four passenger type and sell at from \$1,200 to \$2,000. They represent a continued endeavor to secure lower operating costs through the use of smaller and more efficient engines. A number of makers, who formerly specialized on large cars, are introducing smaller models. There is a marked increase in the number of overhead valve engines. A number of new small six cylinder models are also exhibited.

The new British designs generally show that more consideration has been given to production costs, without, however, lowering the standard of body work, of finish, or of the quality of the accessories. In response to a buyer's demand for better weather protection, framed detachable side panels for open cars are now almost universally supplied. Some of these side panels have elaborate framing and attachments. On one car the panels are of glass but celluloid is used in all other cases.

Many of these panels are usable when the top is down, the rear panels then forming a V-shaped shield for the passengers on the rear seat. Most makers are adding standard sedan bodies to their line. The enclosed body on a light car costs about \$500 more than the open body.

There are a total of 159 different makes of cars being shown. Canada and the United States are represented by Dodge, Hupmobile, Paige, Case, King, Moon, Durant, Packard, Buick, Chevrolet, Oakland, Cadillac, Chandler, Cleveland, Gardner, Essex, Hudson and Overland. France, Italy and Belgium are also represented at the show.

It is evident that the most popular type of car for 1923 will be a four-cylinder, four passenger model of 90-120 cu. in. piston displacement, selling at from \$1,500 to \$2,000. Six cylinder cars of similar size are mostly new models and are not attracting much attention because of the higher prices asked for them. Buyers capable of paying these prices apparently prefer four-cylinder models of larger piston displacement. There is considerable interest in two-passenger fours listing at from \$1 000 to \$1 250.

The British motor taxation system penalizes engines of large displacement and slow speeds. This condition encourages a home demand for cars that are not popular overseas. This operates to curtail production and to maintain prices at comparatively high levels. However, prices generally show a downward trend. American cars cost on the average 20 per cent. less than last year, British 15 per cent. less and continental cars about 12 per cent. less.

Morris, who now has the largest output of any British maker and who is planning a production of 15,000 cars for next year, offers a four passenger 12 hp. car with 102 in. wheelbase at about \$1,250. This price is not approached by any other British make of similar specifications.

## Number of Chassis Models Increased

British makers generally are increasing the number of their chassis models and body types. Daimler is introducing two small sizes, one of 87 cu. in. displacement and the other of 132 cu. in., both having four speed gearsets amidships. This company is also producing the 86 cu. in. size with a three speed gearset which is a unit with the power plant, and a new four cylinder chassis of 86 cu. in. displacement. A two cylinder air-cooled 10 hp. car is also included in the Daimler line. With the exception of the air-cooled engine, all power plants are of the Knight type. Some of these models are offered in two chassis lengths. The result is that this maker has 12 different chassis models with which he offers 55 optional bodies. Wolseley has a line of five different chassis ranging from a two cylinder 7 hp. model to a six cylinder 24 hp. model.

The show is remarkably free from unusual designs. The following percentages apply to individual models of all nations exhibiting. Disregarding two-cylinder models, which show no increase in popularity, fours constitute 75 per cent., sixes 19 per cent., eights 5 per cent., and twelves 1 per cent. of the total, all of these figures being practically as for last year. Detachable heads are apparently gaining favor. The L-head and T-head type of engine have lost ground and the overhead valve type with push rods has gained. Sleeve valve engines show a slight increase. Magneto ignition shows a slight loss. Aluminum pistons are used on 48 per

cent. of the models as compared with 34 per cent. last year. Spiral bevel rear axles are used on 83 per cent. of the cars, as contrasted with 67 per cent. a year ago. The practice of mounting one brake on the transmission is less popular. Forty-eight per cent. of the cars exhibited have unit power plants as compared with 27 per cent. a year ago.

Grease gun chassis lubrication and leather spring covers are now regular equipment on 25 per cent. of all British cars. Rear trunk carriers are found on 15 per cent. of all four passenger models and rear folding windshields on six makes. The provision for storing frame side panels on open cars usually consists of a compartment behind the back upholstery. Other plans include a pocket behind the front seat panel, large door pockets, or a drawer under the rear seat. The body types of several makes of light cars with from 60 to 70 cu. in. displacement are miniatures of the close coupled four passenger type. The rear seat accommodating two children or one adult sitting slantwise.

Disk wheels show a slight decrease in popularity whereas wire wheels appear upon about the same percentage of cars as last year. The majority of makers use a pressed steel, hollow spoke wheel. The popularity of this type of wheel has increased materially during the past year. Wood wheels appear on very few models. Straight side tires are slowly gaining favor. They are regular equipment on six per cent. of the British cars as compared with one per cent. last year. The new users of this type of tire include Rolls-Royce on the one hand and the Singer, one of the most popular British light cars, as the other extreme.

Two British cars are now fitted with the Entz transmission. One has a 3½ x 5½ four cylinder sleeve valve engine and sells at about \$3,750 for the chassis. The other has an overhead camshaft engine with a 4 in. bore and 5½ in. stroke.

## PACKARD DECLARES 100 P.C. STOCK DIVIDEND

**D**IRECTORS of the Packard Motor Car Company recently declared a 100 per cent. stock dividend on common stock, payable to stockholders of record December 9. The action closely follows a cash dividend of five per cent. distributed to owners of common stock on October 31 last.



# Canadian Automotive Trade

MEMBER AUDIT BUREAU OF CIRCULATIONS,

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## *Selling Power of Display*

THERE is no more potent factor in merchandising than display. Display works all the time, costs little, is a strong selling force and is far-reaching.

The following incident in connection with the Christmas merchandising idea emphasizes this very strongly:

A Canadian jobber desirous of selling the idea of good Christmas display to his salesmen and through them to the dealers, went to great pains to prepare a display in his warehouse which might be used as a pattern. When the display was ready the jobber had some photographs made which he gave to his salesmen to show to the trade.

One of the salesmen had occasion to call on a customer who does not sell any kind of automotive equipment, but who operates a large fleet of trucks, and has a fully equipped garage and mechanics to do all the repairs required. The salesman, thinking the customer would be interested in seeing what his firm was doing, showed him the photograph. The man, who by the way was assistant manager, was so interested he showed it to his manager. The manager, in turn, was impressed with the display and asked numerous questions about automotive equipment for Christmas gifts. He said he had always had trouble making up a Christmas gift list and was glad to know so many accessories would just fit in.

In a few days' time everybody around that customer's establishment was talking. The result of all this interest was an order for about sixty dollars' worth of equipment, all for Christmas gifts.

This happened in Toronto a few days ago and goes to prove how far-reaching are the effects of a good display. The salesman when he showed the photograph had no idea of making sales. He had nothing to do with the selling; the credit was due entirely to the display.

Let's put on a real display this Christmas and make it tell the world this is an automotive Christmas. LET'S DO IT NOW!

## *Would Help Tractor Sales*

AS POINTED out in an article by Arnold P. Yerkes in a recent issue of Canadian Automotive Trade, the farmer is in a better position to buy right now, than he has been for a year and more. His position is better now than it was even six months ago.

The farmer is again looking to the tractor. He is convinced of its economy and dependability. As Mr. Yerkes points out "It is a safe statement that with the vast majority of farmers it is no longer a question of whether the tractor is a good investment or whether they shall buy one; they have considered both these questions in the affirmative in their own minds—it is merely a question of when they shall buy."

When they shall buy depends a great deal on the tractor salesman. If the salesman approaches the prospect in a half-

hearted manner, almost with the conviction that a sale cannot be made, it is certain he will not make a sale. The dealer must be sold himself, sold on the tractor and its ability to help the farmer reduce costs. He must also convince himself of the farmer's ability to finance a tractor. This latter knowledge is readily available.

The dealer would find tractor sales easier to make in a good many cases if he made a serious attempt to sell the farmer's wife. If the dealer in his letters and advertising addressed to her, make his appeal from the standpoint of doing the same amount of work in so much less time per day instead of so much more work in the same length of time, it will call to her attention the effect power farming will have on her enjoyment by giving her an opportunity to spend the evenings more as she wishes. In this way the dealer will in a good many cases secure her help in making the sale, while in some cases if he does not consider her she may use her influence the wrong way.

It is also a good plan in selling tractors to show the farmer how many tractor users there are in his district or county. This can be done by securing a large map of the section and mounting it on the wall of the dealer's salesroom and indicating by a red or black dot on the map each farm where a tractor is being used. The name of the owner should be given above the dot and below the dot should be given the number of tractors in use on the farm and the purposes for which they are used. This map can be shown to the prospects, and this visualization of the extensive use of the tractors would help greatly in making sales. This stunt, of course, would have its maximum effect in those districts where the tractor agency was well established.

## *Fire*

IN THE EVENT of fire in a dealer's garage the cause of which has been found due to negligence, the dealer is liable for whatever damage is done to cars under his care.

Some interesting cases are cited in the article on page 23 entitled, "Is Garageman Responsible for Customers' Loss by Fire or Theft?" which will be interesting to all readers.

Dealers should take all necessary precautions. Fire prevention methods of construction where possible should be used. Devices to put out fire when it occurs should be installed. And above all, shops should be kept clean. Oil should not be allowed to remain on the walls or floors. Dirty waste should be carefully collected and destroyed and all fire prevention devices kept in good shape.

## *Reader Interest is Essential*

WHEN John Wanamaker, some years ago, withdrew his advertising from free-distribution mediums, it was mainly because these had no fundamental reader interest. This was the finding after a deep study of the subject. It was the conviction that the man who subscribed for a newspaper or other publication, expected to find advertising in it and valued that advertising as in the light of an investment, as something he had appreciated sufficiently to pay for.

The opposite was the effect of the free-distributed product. Here the receiver had no primary interest in the publication; it appeared in unexpected places, without request, and had somewhat the status of an unexpected guest.

Then, as now, free-circulation mediums were found to recognize no responsibilities toward the problems attending the business or industry, offered no constructive service through their columns, had no means of developing helpful discussion, offered no interchange of news or views, and in short had no interest beyond that contained in their advertising pages and the revenue they represented.



# How to Instal a Radiator Service And Make It Pay This Winter

Automotive Repair Shop is Logical Place to do Radiator Repair Work. Big Profits for Well-Equipped Shop. The Various Cooling Systems Explained. Trouble Finding and Repair Hints.

By DONALD A. HAMPSON

**I**T IS A FACT well known in the automobile repair business that there is a latent business fully as large, if not larger, than that which is actually done. Every car owner knows of necessary repairs that he hasn't had done and that won't get done unless he is more thoroughly sold on the subject; money is a secondary consideration—confidence is the stumbling block that offers all this sales resistance. The man with car repairs screaming for attention is not sure that he can get value received for his money, he is not sure that there are competent workmen properly supervised, he is not sure that the repair shop has the facilities—therefore he lets the old boat wheeze along as she is, justifying his action by the thought that a half-done job is little better than one never attempted.

If the automotive public—car, tractor, and truck people—could be fed on confidence and kept satisfied with that nourishing food, the volume of repair work that would be turned loose would literally swamp the business.

Radiator work is no exception. Everyone has learned that a radiator is a delicate unit. Leaks that have developed through accident or neglect have caused no little trouble and a few men have learned, through attempted home remedies, that a radiator demands a deal of skill and knowledge to repair it properly. These near-repairs and the attempts to plug leaky radiators—many thousands of these—have built up such a respect for the unit that not a fraction of one per cent. of radiator work is done in the private home garage.

## Why Not Have This Business?

Garages are well qualified to do radiator work. All they lack is the right equipment and a thorough knowledge of cooling systems on the part of one or more members of their personnel.

Why should an established garage business let the radiator work go outside? They can get a higher hourly rate for it than for engine work or machine work or any of the thousand odd jobs about the car's mechanism.

The garage repair shop is the logical place in which to do radiator work; it has plenty of storage space for the car—space that is not curb storage, the car is under shelter and in a moderately warm room, it is close to all the various

garage activities which may be called upon when making extensive or temporary repairs—machine shop, storage, supplies, battery room, wash rack, etc., etc.

In the final analysis it is the jobs that actually reach the shop that pay the bills; and customers will send their jobs to a shop in which they have confidence—confidence built upon the shop's reputation, its equipment, and a broad knowledge of this particular work by the men who do the work or the man who directs them.

## The How and Why of Cooling Systems

The cooling system is designed to maintain a uniform temperature in the engine. It does this by lowering the temperature of the circulating water and this, in turn, keeps the cylinder walls from overheating.

To the layman it might seem that the circulating water fulfills its function if it is kept from boiling in the summer and does not freeze in the winter. This is, roughly, true, but it allows too wide a range for efficient engine operation—the internal combustion engine operates best at a nearly fixed temperature which

may vary for different classes of engines but which is in the neighborhood of 100 degrees Fahrenheit.

If the water were all drained, it would not take long for the walls of the engine in service to heat up to five or six hundred degrees. Trouble would start then if not before. The cooling system's job is to prevent the temperature from rising to these dangerous heights—to keep it around the hundred degree mark.

In the realm of mechanical engineering a radiator would be classed as an "air-surface condenser." Its simplest form would be a long length of pipe wound in a spiral or other convenient shape and connected at both ends to the cylinder water jackets. The outside surface of this pipe would present such a large area to the atmosphere that a great deal of cooling would be accomplished on the water inside—BUT, the amount of cooling in proportion to the quantity of water would be small; such a large volume of water would be required for cooling in this slow way that there would not be room for the pipes on the car.

More efficient means must, therefore, be employed for dispersing the heat as it is received by the water. Unless excessive evaporation takes place the only way is to pass this heat off to the air by

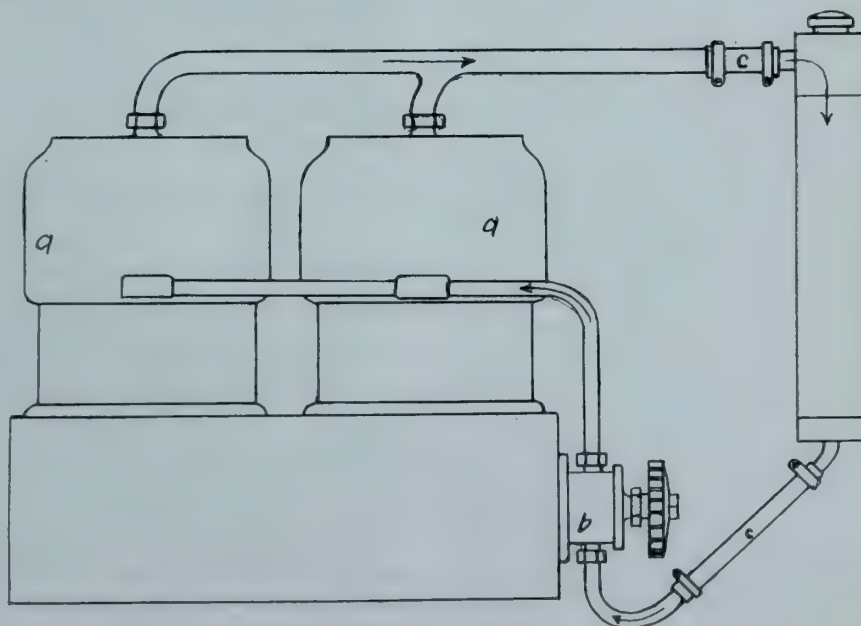


Fig. 1—The typical engine cooling system.



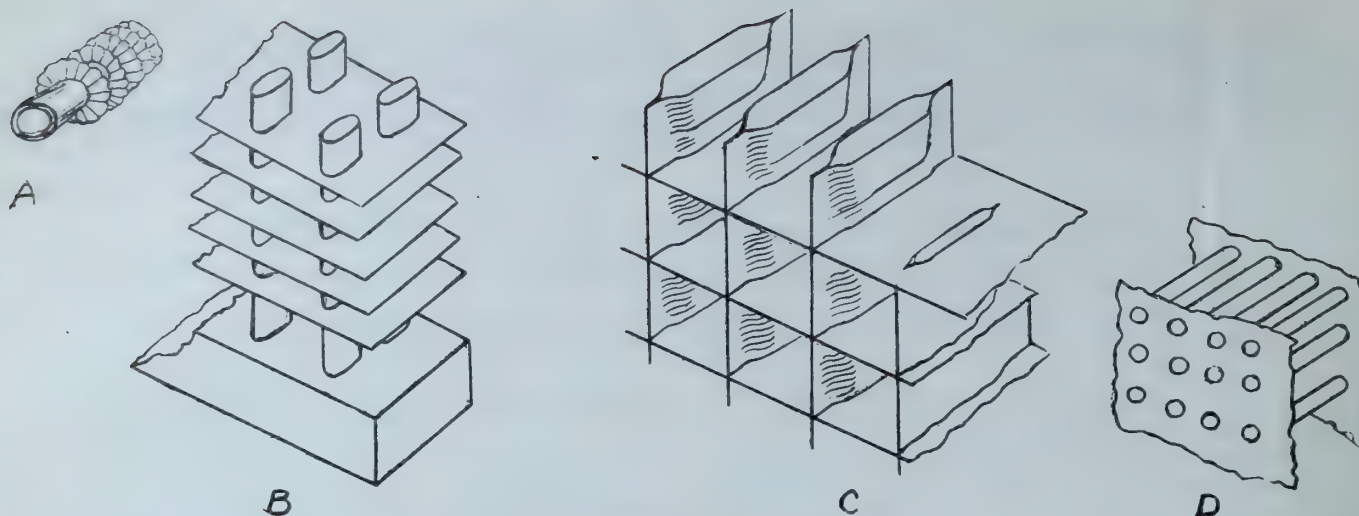


Fig. 2—Common Forms of Radiator Cores.

convection and radiation. The means usually employed consist of a radiator in which the hot water is cooled by the circulation of air; a fan for accelerating the passage of air through the open spaces in the radiator; a pump for forcing the water through the circulating system; and the necessary connections to the cylinder water jackets.

This, in brief, is the system which a radiator service must be prepared to care for. Cars whose engines are cooled by the thermo-siphon principle employ the same units omitting the pump; this is also called a gravity system and its outward difference lies in bigger hose connections, greater water capacity in the radiator, and a setting of the radiator higher up in relation to the engine.

The air-cooled engine and its blower-cooled brother do not interest the radiator man.

Fig. 1 shows the usual means of cooling of which we have spoken. If it were not for the space required by water jackets, the upper half of the cylinders would be as small as the lower; this enlarged portion is marked a,a. The water travels in the direction of the arrows. The pump system of cooling does not use a large supply of water; hence it is very essential that circulation be rapid, for, at best, there will be a difference of only a few degrees between the temperature of the water entering the radiator and that leaving it. The pump, therefore, becomes a highly-important unit in the system and sluggishness on its part is often the cause of inefficient cooling which is laid to radiator trouble.

Any convenient location may be selected for the pump near the lowest part of the system but, wherever it is, it is positively driven. Because of the shape of a pump casing it would be difficult to drain the pump thoroughly if only one drain cock were provided and that at the radiator; it is customary to put a drain cock in the bottom of the pump casing. It is for these reasons and because it is more certain to have a pump set so that the delivery head is greater than the suction head that the pump is placed at the lowest point in the system.

Usually the radiator is connected by rubber pipes, c and c, to the upper and lower metal pipes coming from the water jacket. The direction of the water is shown by the arrows. It is important to note this direction—good automobile mechanics have been found who were certain that the water flowed upward in a radiator.

#### The Radiator

Radiators are made in a wide variety of types and shapes. Car radiators consist of three parts—the core, the tanks, and the shell.

The shell is the trimming, so to speak; it is the nicked or painted outside part that surrounds the core and that is

ends to make a lasting structure and that is one function of tanks, which serve also as headers into which the connections to the engine may be piped. On passenger cars, the tanks are usually of copper, from 0.008 in. to 0.010 in. thick.

The core is the vital part. It is the part where most of the cooling takes place—also, it is the part where leaks are most frequent and consequently it is of most interest to repair men. When radiators are spoken of as “tubular” or “cellular,” the reference is to the style of core employed.

#### Types of Cores

In Fig. 2 are shown the various types of cores in common use; there are different constructions for each of these types but the design in general remains unchanged.

At A is shown one of the oldest types. To the coils of copper pipe are soldered a large number of thin flanges whose purpose is to increase the surface exposed to the air and thus carry off the heat of the water more rapidly.

The fin-and-tube type is shown at B. This is also known as the tubular radiator and it is one of the most widely-used types. The tubes are made of copper or brass about 0.005 in. thick and are passed through horizontal sheets which are pierced for the purpose. At the top and the bottom the tubes enter the tanks. Though mechanically joined, soldering is depended upon to make the whole watertight. Sometimes the tubes run horizontally and the fins vertically; in such case there must be side tanks or headers to connect the other tanks. Some cores are made with a single flattened tube at each spacing instead of two as shown.

The expanded tube type really differs but little from the fin-and-tube. Tubes are made by soldering two sheets of material together at their edges, with the centre portions assembled apart to make a thin flat tube. These tubes are afterwards assembled on fins and the tubular portions between the fins expanded still

#### WHY NOT?

Why should an established automobile repair shop let the radiator work go outside? Why don't the repair dealers make an onslaught on this kind of work this winter? They can get a higher hourly rate for it than for engine work or any of the thousand odd jobs about the car's mechanism.

shaped to match the hood in the distinctive forms that we learn to know as Fords, McLaughlins, Packards, etc. Many truck radiators are more simply built, the core serving without any shell except at the top where a tank is built on that does as shell and tank. The shell on car radiators is a stamping made of light gauge copper, brass or steel—that on truck radiators is usually iron casting.

Tanks are placed at the top and bottom of radiators to increase their water capacity and to provide a means to secure the ends of the core; the score or more of tubes extending vertically must be joined to something solid at their



more, as shown at C. Solder enters largely into this construction also.

One of the most widely-used types is the cellular or honeycomb radiator. This is shown at D. Front and back plates are stamped out alike, spaced at a distance which is to be the radiator's thickness, and tubes inserted in the openings. These tubes may be round, hexagonal, or square. Soldering completes the assembly—soldering that includes closing up the vertical sides. Tanks are soldered on top and bottom, or are omitted altogether.

With the first three types the heated water fills the tubes—the types B and C divide it into a large number of thin sheets retained by thin metal walls through which the heat of the water is rapidly passed as the air from the vehicle's motion or from the pump circulates about them. The cellular type carries the air inside the tubes, while the rest of the interior is filled with the heated water.

So far as cooling efficiency is concerned, there is not much choice between the types. The cellular, however, has what is a strong talking point, at least, in that the core may be completely ruined at one point by accident or otherwise yet the radiator may be repaired as good as new by cutting out the damaged section and soldering in a new section—this without taking the whole radiator and core assembly apart.

#### What Radiator Service Is

This covers briefly the cooling system which a real radiator service must comprehend. The beginning of service is an understanding of principles. Then there must be sufficient equipment to cope with service problems, manual skill in repair work, and the ability to diagnose troubles before a radiator is removed from the car.

"Radiator service" means more than getting the radiator off the car, into the shop, and tearing it apart. It means keeping the car on the road without all this expense, if it is reasonably possible. A few men—very, very few—might be disappointed if the radiator they thought required a complete rebuilding only needed a new hose at the bottom, but the average owner will be very glad to find a shop that is honest and intelligent enough to avoid this hold-up. The good will of a customer obtained in that way will return many times in increased business.

#### Radiator Troubles

Leaks and clogs are the two major troubles with radiator cores. A leak is usually due to some accident and occurs suddenly—clogging is the slow building up of foreign matter in the water passages.

A leak causes low water or total loss of water which results in the engine overheating and possible seizure of the pistons. The remedy is apparent upon inspection.

Unless a leak is very bad, a car may be operated safely if the driver remembers to fill up the tank every so often.

Sometimes a leak may be repaired by soldering without taking the radiator off the chassis—but this is the exception rather than the rule. The passages are so small and the location so restricted that only a very few jobs can be done without dismantling.

Before a radiator is condemned and removed, a thorough investigation should be made to ascertain if it is not some other part that is leaking—very often it is and the drip falls so that it seems to come from the core or tank. Many leaks are in the rubber tubes or their clamps, the cock under the pump may leak or the drain under the radiator may leak or get lost or a water jacket may be

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It is not hard to get radiator business once the dealer convinces his trade that he has the goods. When the radiator department is installed the public should be invited en masse. No opportunity should be lost to lead car owners into the radiator department. Seeing the work done — taking the mystery out of the job is a good way to induce the prospective customer to "come across" with his similar problem.

Besides direct advertising and personal letters, one of the best ways to get radiator customers in your place is by mixing with them in other places — clubs, meetings and the like. Think and talk radiator.

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cracked. The remedy for these troubles is obvious.

Soldering is the method of repairing leaky cores and tanks. To solder well takes not only proper tools but proper instruction, patience and practice. No man should be groomed for the radiator department who cannot measure up to these requirements or who, at least, is lacking in patience and care. It is not within the scope of this article to tell how to solder; suffice it to repeat the words of one skilled in the art and who says: "Have your work clean and always keep your iron tinned—the battle is then more than half won."

Obstructed circulation is a vital factor in causing engines to overheat. The use of dirty water, failure to flush out the system at intervals, and the deposition of scale upon the interior walls from certain anti-freeze solutions or from hard water—all of these tend to obstruct circulation or to retard cooling.

Carbonate of soda is commonly used to clean scale from interiors. It answers very well when used at regular intervals

before anything like a hard lime scale is formed. A solution of lye, strong and hot, is good. In extreme cases hydrochloric acid in the proportion of one to ten parts of water may be used (the radiator should be disconnected from the engine for this). A thorough rinsing with clear water must follow the treatment.

The necessity for removing even a thin scale becomes apparent when its effect upon cooling is known. Investigations have proven beyond shadow of doubt that the cooling efficiency is tremendously reduced by wall deposits; in one test upon cores made of 0.008 in. copper the efficiency was reduced from 80—clean and new—to 2 when a scale but 0.002 in. thick had formed.

Other overheating troubles arise from obstructions such as waste getting into the pump or pipes, stoppage of the pump through shearing off of the pin or key which drives the rotor, or slipping of the fan belt. It often takes prolonged investigation to locate these troubles but the right kind of radiator service does locate them before dismantling that complex unit.

#### The Shop and Equipment

A garage that goes into the radiator business should never "go" unless it has space enough to set apart a room for this work alone. One hundred square feet of floor space will soon be too small for the shop that does conscientious work. Light, heat and gas service are essential. Start with a clean room and keep it so. Also, be systematic! don't allow every rough neck to come into the place and chuck down parts where he will. There may be more work on hand than desired but it is not necessary to let that clutter up the room.

The equipment for the radiator room consists of:

One or more work benches.

One or more bench vises, one of which may be a wooden vise.

One or more pairs of wooden horses, 36 in. high.

A tank or vat 36 in. square or of equivalent area.

A sink, though the vat may take the place of this and a water service connection be brought down from overhead, as a flexible pipe with convenient end for attaching to.

An electric soldering iron, or

One or more soldering irons of the usual type.

A gas furnace for heating the soldering irons.

A small acetylene torch to be used for unsoldering seams.

An air service connection or manually-operated air pump for testing for leaks.

It is convenient to have a small drill press available and, of course, taps and dies. Bolts frequently have to be drilled out and the holes re-threaded.

Not all the equipment listed above is required at the start, but all of it or its equivalent must be supplied in building



up a complete service. Then there are the various small supplies like scrapers, stiff brushes for cleaning off hot solder (not metal brushes), horse-tail brushes and wire cleaners like gun cleaners, hack saws and hand saws, etc., etc.

#### How To Get the Business

It is not hard to get business once you convince your trade that you have the "goods." When the radiator department is installed the public should be invited en masse—after that no opportunity should be lost to lead car owners into the room. Seeing the work done—taking the mystery out of the job is a good way to induce the prospective customer to come across with his similar problem.

Besides direct advertising and personal letters, one of the best ways to get radiator customers in your place is by mixing with them in other places—clubs, meetings, and the like. Think and talk radiator.

Two splendid ways of drawing attention to the radiator service will be noted. One man carried around with him in his pocket a small section of the two common forms of cores. Whenever he found himself in a group or in company with a friend or prospect, he would draw them out and explain something of cooling system construction and operation. The other man got up a good hour's talk on radiator work; this he gave at men's clubs or church clubs, doing it a couple

of times a year when opportunity offered—soon he got to be known as a radiator specialist and work in an almost endless stream came to the shop.

There is no denying that a car owner appreciates a little free service—a little attention. It is just like the workman who is not afraid to work five minutes on his own time or to study a little nights—his employer is only too happy to have such a man around and if there are any good things to be handed out this man gets them. With the car owner, if his machine was in a garage for rear-end trouble and, when finished with that, the radiator man was told to look over the cooling system and he discovered a drain cock that had been hit with a stone, knocking it so loose that another mile of driving would see it out and the water all drained—if the owner of that car was informed of the inspection ("no charge"), wouldn't he remember the favor when it came to a bigger job?

A radiator service should so enthrall all connected with it that they would talk radiator, see radiator, advertise radiator all the time. These men should fairly radiate radiator information. Soon it will become infectious and at least the motoring public with whom they come in contact will come to look upon them as informed men and their workshop as the very best place to get a real job done.

Then there are a number of supplies

that can be pushed in connection with radiator service. Anti-freeze compounds, motormeters, ornaments for radiator caps, covers for cold weather, enamel for re-finishing, and, of course, a full line of hose connections and clamps.

Of the anti-freeze solutions, alcohol is probably the best all-round medium. In connection with any of these, a service can draw business to its repair shop by calling attention to the added expense in the case of existing leaks; enough alcohol at 70 cents a gallon may be lost in a short period to pay for considerable dismantling and soldering up.

Both denatured alcohol and wood alcohol are used in large quantities. Barring leaks, they will be found the most satisfactory solutions. Kerosene is good but there is the risk of inflammability ever present. Glycerine is used either alone or in connection with alcohol to lower the volatility of the latter—a half and half mixture of these two added to the water has a wide following. The chloride mixtures are also used to some extent but as yet none of them appear to be free from too much scaling troubles for the average owner to adopt.

The radiator service should be equipped to attend to anti-freezing wants. Suitable containers, funnels, etc., must be provided. And along with these go the necessary equipment to flush and wash out cooling systems in the spring and at other regular intervals.

## Bosch Announces Battery Ignition System For Chevrolet Cars

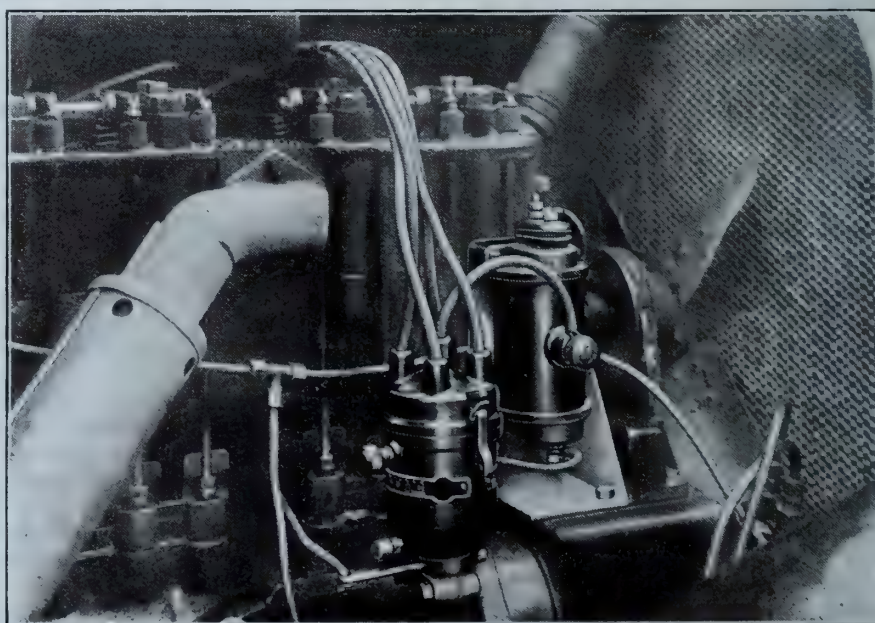
A BATTERY system, made especially for Chevrolet cars, has just been produced by the American Bosch Magneto Corporation, of Springfield, Mass. This system has automatic spark control and is designed to replace the standard Chevrolet ignition, which uses manual spark advance.

In designing this system the Bosch Corporation studied the characteristics of the Chevrolet engine by making dynamometer tests. They then designed the Bosch Compensating Governor so that it would automatically advance the spark in accordance with those engine characteristics. As a result, the new system, it is claimed, will keep the engine operating at maximum efficiency at all speeds, advancing and retarding the spark more accurately than would be done by the most experienced driver.

The Bosch System is waterproof, and easy to install, the coil being mounted directly on the generator by the use of a single bracket which is supplied with the fitting. As in the standard Chevrolet system, the Bosch timer-distributor is mounted on the generator and is driven by the generator shaft.

The Bosch Ignition System is applicable to all types of Chevrolet engines.

It is supplied complete with bracket, cables, and all necessary parts.



New Bosch Battery Ignition System For Chevrolet Cars.



# How to Take and Price an Inventory

Dealers in Automotive Equipment, Tires, Batteries, etc., Will Shortly be Faced With the Task of Taking the Annual Physical Inventory. The Process is Often Full of Guessing and Juggling. The Correct Procedure is Outlined Here.

By G. W. HAFNER

**A**N inventory is a part of a statement of the financial and operating condition of a business upon a certain day. And yet anyone at all familiar with actual conditions will agree that the inventory is usually the most dubious figure in the financial statement or balance sheet. It may look very precise, but it commonly covers a multitude of sins. The entire process is often full of guessing and juggling; and, to cap it all off, a thoroughly unsound scheme of valuation may be employed.

## What An Inventory Should Include

The influence of the closing inventory figures upon the showing of net income and financial position is so great as to demand the most searching scrutiny of inventory practices, and the insistence upon the use of principles and procedures which are as rational and accurate as possible. Especially in these days of heavy income taxes has the inventory process—both taking and pricing—become a matter of utmost significance to all business men.

Hence our endeavor should be to ascertain, not alone how to take the inventory so as to eliminate mistakes, but also the best manner in which to price the inventory after it is taken. What we should be interested in is getting at the facts, whatever they may be. We want to know what the goods on hand on a certain day are worth as an asset of the business.

## Pricing At Cost or Market

Where the method is used of pricing goods at cost or market, whichever is lower—it becomes necessary to set up three price columns on the inventory records, designated as "Cost," "Market," and "Lower," as illustrated by Figure 4. The cost per item or unit should be entered in the first column; the market price, in the second column; and the lower of the two preceding figures, in the third column. The number of units of each item appearing on the inventory sheets are then extended at the values showing in the third column.

Market is defined as the current bid price prevailing at the date of the in-

ventory for the particular merchandise. In establishing a "bid" price it is necessary to show actual tradings in the particular merchandise, goods or materials at the prices used. Getting at the market price is sometimes difficult, but there is no mystery about getting such values. Quotations can always be secured for the merchandise on hand which is sold in the same form as it is bought.

The material part of any manufactured product would also be priced at market, plus labor and overhead. In labor and overhead the use of "market" also applies. These are usually measured, of course, by the actual payments for labor during the period, and by actual overhead for the period, or by an average rate or a standard rate of overhead. Thus the labor represented in the goods

being inventoried may have been at a higher rate than that obtaining at the close of the year. The actual burden rates at the end of the year may, likewise, be lower than the rates applied when the products were manufactured. In such cases the lower rates in effect may be substituted.

This whole matter of pricing the inventory will be simplified and clarified, if it is borne in mind that the inventory is in the nature of a photograph, a snapshot, of the value of the stock on a particular day. It is not an impressionistic painting that brushes into the values either the hopes or the fears of the future. Neither is it a forecast of what the business will be in a week, a month, or six months hence.

It is advisable, then, from every conceivable standpoint that inventories be valued by the method, "cost or market, whichever is lower." As an indication of

FIG. 1

QUAN. \_\_\_\_\_

DO NOT DETACH THIS TAG

INVENTORY CARD

GENERAL

DEPT. \_\_\_\_\_

DESCRIPTION \_\_\_\_\_

COUNTED BY \_\_\_\_\_

QUANTITY \_\_\_\_\_

FIG. 2

QUAN. \_\_\_\_\_

DO NOT DETACH THIS TAG

INVENTORY CARD

WORK IN PROGRESS

DEPT. \_\_\_\_\_

DESCRIPTION \_\_\_\_\_

COUNTED BY \_\_\_\_\_

QUANTITY \_\_\_\_\_

FIG. 3

QUAN. \_\_\_\_\_

DO NOT DETACH THIS TAG

INVENTORY CARD NO. 574

SUPPLIES

DEPT. \_\_\_\_\_

DESCRIPTION \_\_\_\_\_

COUNTED BY \_\_\_\_\_

CHECKED BY \_\_\_\_\_

PRICED BY \_\_\_\_\_

QUANTITY \_\_\_\_\_

UNIT \_\_\_\_\_

UNIT PRICE \_\_\_\_\_

HAFNER METHOD

Tags like these together with the inventory sheet shown on the next page are all that is necessary in taking an inventory.







# Modern Practice in Battery Service

This is the Fourth Article in a Series Covering Entire Field of Battery Repairing. The Author Here Deals With the Principles of Electrolysis, a Grasp of Which is Essential to the Proper Servicing of the Storage Battery

THE author having briefly drawn a series of word pictures demonstrating how to achieve success in the operation of a battery service station, now feels the time has arrived to probe into the mysteries of the storage battery itself.

Whilst the commercial organization of the battery service station is of great importance, it will be readily conceded, that without a sound fundamental knowledge of the battery itself, ultimate failure will inevitably overtake any service station that overlooks this most important part of its equipment.

By acquiring a sound knowledge of the principles of the storage battery, one is not only rendered competent to undertake treatment of a sick battery, but also in a position to explain in a simple manner all the questions so frequently asked by the car owner.

Before we can approach the underlying principle of the storage battery, it is most desirable that we obtain a grasp of the principles of electrolysis.

When a D. C. (direct current) current passes through any non-metallic liquid which has electrical conductivity, chemical action immediately takes place. The fluid is decomposed and split up into its original components.

To insure this electrical conductivity, it is usual to add a small percentage of salt or sulphuric acid to a tank of water through which we desire to send a current of electricity. This is the usual procedure when it is necessary to erect some form of a water resistance.

The higher the percentage of salt or sulphuric acid added to the water, the lower will be its resistance, with a consequent increase in its conductivity.

In sending a current of electricity through the chosen liquid the end of the positive wire is inserted into the solution at one side of the tank, and the end of the negative wire is inserted at the other side of the tank. Great care must be taken to prevent these two wires touching, otherwise a "short circuit" will result.

These two wires are now spoken of as "poles" or "electrodes" and they are given special names, as follows—anode and cathode.

The anode is that wire which is connected to the positive pole of the dynamo.

By GEO. R. ARCHDEACON

The cathode is that wire which is connected to the negative pole of the dynamo.

The current flows along the positive wire to the anode, leaves the anode to pass into the liquid, flows through the liquid to the cathode. It then leaves the liquid, travels up to the cathode out of the liquid and then back to the dynamo along the negative wire.

The chemical action only takes place at the points just where the current leaves the anode to enter the liquid, and

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Because it is so necessary for the battery service man to have a thorough grasp of the fundamentals we have had this article on electrolysis prepared. The author has treated a highly technical subject in a simple manner so that it can be understood by all.

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just where the current leaves the liquid to enter the cathode.

No chemical action occurs in any other part of the liquid.

The liquid through which the current passes is known as the electrolyte.

This restricted area of operations is due to the action of the ions.

These ions are the carriers of electricity through the electrolyte.

Ions are supposed to be groups of atoms, which are charged either positively or negatively, and they move in a continuous procession through the electrolyte.

Those ions which carry a negative charge are called anions.

Those ions which carry a positive charge are called cations.

The negatively charged anions pass in a direction opposite the current flow, going towards the anode, and there

give up their charge, being neutralised by the positive charge of the anode.

The positively charged cations pass in the same direction of the current flow, flowing towards the cathode, and there give up their charge, being neutralized by the negative charge of the cathode.

Put in a concise form, an ion is merely an atom or group of atoms charged with a certain quantity of electricity which it transfers from one electrode to another.

From this statement it will be apparent that there is actually no "direction of current flow" as this is absolutely a matter of the ions taking on their respective charges, and transferring these charges between the anode and the cathode.

The usual products of electrolysis of weak solutions of acid and water (bearing in mind that water in an absolutely pure condition is a non-conductor of electricity) are oxygen and hydrogen.

The oxygen appears at the anode or positive electrode.

The hydrogen appears at the cathode or negative electrode.

The quantities of oxygen and hydrogen formed by the passage of a current of D. C. electricity through slightly acidulated water is always the same, viz:

Eight times as much oxygen as of hydrogen by weight.

Twice as much hydrogen as oxygen by volume.

These proportions are nature's fixed limit for the proportions of these gases when combined to form water, and are expressed in the well-known chemical formula for water as  $H_2O$ .

Whenever chemical dissociation is produced, energy is dissipated.

The energy necessary being in proportion to the amount of heat set free when the compound was formed by the combination of its constituent molecules.

Conversely, when chemicals in an electrolyte combine to form a new substance, the heat energy of formation may manifest itself as electrical energy instead of heat energy.

This fact makes possible the electric battery.

All the above phenomena are governed by well regulated laws, and it is to that well known Englishman, Michael Faraday, that we owe the first establishment of such laws.



Michael Faraday formulated the following laws which have been amply confirmed since his first discovery.

(1). The amount of substance liberated at an electrode is proportional to the amount of electricity passed through the cell.

(2). The amount of each element deposited by unit quantity of electricity is a definite and constant quantity which is termed the electro chemical equivalent of the element so deposited.

(3). If the same quantity of electricity be passed through different electrolytes, the weights of the different substances deposited will be proportional to their respective electro-chemical equivalents.

These laws are expressed mathematically as follows:—

Let.  $Z$  = Electro-chemical equivalent.

Let.  $Q$  = Number of coulombs of electricity (amperes per second.)

Let.  $c$  = Amperes flowing in the circuit.

Let.  $t$  = Time in seconds.

Let.  $W$  = Weight of substance deposited in grams.

Then  $W = Z \times Q$ .

Whilst for steady passage of current of  $C$  amperes for second.

$Q = c \times t$ .

$W = Z \times c \times t$ .

The electro-chemical equivalent of a substance is the ratio of quantity, by weight of substance which is decomposed by one coulomb of electricity, to the quantity of hydrogen liberated, by the passage of one coulomb.

If two suitable metal plates are interposed in an electric circuit, and are placed a short distance apart in a liquid which is a chemical compound, the current flowing in the circuit will cause the liquid to be split up into its component parts.

If the constituents of the liquid are gases, one gas will be given off at one plate, and another gas will be given off at the opposite plate.

If one of the constituents of the liquid is a metal (as with copper sulphate, or silver nitrate solutions) this particular metal will be deposited on one of the plates.

This plate is called the cathode, whilst the other plate is called the anode.

The solution is called the electrolyte, and the whole process is known as electrolysis.

Volta (an Italian scientist) discovered in 1790 that if electrodes of two chemically dissimilar conducting materials are immersed in an electrolyte, which can attack one or both of the electrodes, an electromotive force is produced. This in turn results in a flow of current when the external circuit is closed.

Whilst the circuit remains open, little chemical decomposition takes place, but when the external circuit is closed, a

flow of electricity takes place, and the chemical action becomes violent, and the attackable electrode is either gradually eaten away, being dissolved in the electrolyte, or it combines with the electrolyte to form another substance.

Volta found that the amount of the electrode destroyed or converted into another substance, was proportional to the quantity of electricity taken from the cell.

Any two chemically dissimilar electrodes which give rise to an electromotive force when immersed in an electrolyte are called a voltaic couple.

There are two different classes of voltaic couples:—

(1) Chemically dissimilar electrodes which give an electromotive force, until the chemicals are exhausted, and then have to be discarded.

(2). Chemically dissimilar electrodes which are not exhausted or dissolved, but undergo certain definite chemical change until a limit of such change is reached. After which they can be returned to their original condition by sending a current of D. C. electricity through them in the opposite direction.

It is just these two characteristics of voltaic couples, that divide all electric batteries into two distinct families, as follows:—

(1). Primary battery.

(2). Secondary battery or storage battery.

Having briefly disposed of the various phenomena leading up to the two families of electric batteries, we are now in a position to consider the phenomenon of the so-called storage battery.

Strictly speaking, this term storage battery is incorrect, because the battery in question does not actually "store up"

electricity in a similar manner that water can be "stored up" in a tank, and by the simple process of opening a valve take out of "storage" so much water.

The laws of electrolysis control the functioning of this so called storage battery, as we have already shown that it is necessary to establish a positive charge upon certain hydrogen ions, and a negative charge on another set of ions, and that it is entirely due to the interchange between these ions that the electric current is caused to flow.

It is therefore obvious that we do not put so many amperes into a battery, and store them there like so much water in a tank.

This is a matter of energy transformation rather than one of storage.

In this instance we have transformed electrical energy into chemical energy, and if we reflect on this particular transformation we will realise that we have got back to the starting point, as follows:—

The heat energy of the burning coal is changed into the kinetic energy of the steam engine turning the dynamo, the kinetic energy of the steam engine into the electrical energy of the dynamo, into the chemical energy of the storage battery.

As the heat energy released in the combustion of the coal is the result of chemical energy, and as the flow of electricity from the storage battery is the result of chemical energy, and as these two demonstrations of chemical energy, are directly related through the connection established via steam boiler, engine, dynamo storage battery, we find that we have merely completed a circle, and once again proved the old law to be a sound fundamental truth—"you cannot create or destroy matter."



A corner of the repair shop of the Apex Auto Supply, Hamilton, Ont., showing the vulcanizing outfit and air compressor. Notice how clean and orderly everything is. This firm is handling automotive equipment, tires and tire repairing, and oils. They are aggressive and believe appearance and display most important factors in their business.



# Is Dealer Responsible For Customer's Loss by Fire or Theft?

Dealer is Bound to Furnish Reasonably Safe Accommodations for Customers' Cars and Exercise Reasonable Care. Some Interesting Cases Covering Fire and Temperature Are Given Here.

By H. C. MYERS

**A** GARAGE keeper storing the car of another for compensation is what is known in law as a "bailee for hire," and as such he is bound to furnish reasonably safe accommodations, and to exercise reasonable care and prudence to keep the machine in a safe manner. If the garage keeper is guilty of negligence resulting in loss or injury to the machine he may be charged with the damage. The following are a few examples of actual cases:—

**Temperature:**—In an Ontario case recently the garage man allowed the temperature of his garage to fall so low that the water in the cooling system of the plaintiff's car, stored in the garage, froze and burst the water jacket and other parts. The garage owner was held not to have exercised reasonable care, and prudence, and the plaintiff was given judgment for the damages to his car.

**Fire:**—In a case in the Province of Quebec the garageman had a vulcanizing outfit in a four or five-foot room inside his garage; the evidence showed that the wooden walls were soaked with oil and the floor littered with paper. It was established that a fire broke out in this room, a few minutes after the workmen employed in this room had left it. The fire destroyed an automobile left in the garage for repairs, and, in the court action which followed, the garage owner was held to be at fault, and liable for the destroyed car. The decision of the court was as follows—"He who receives and keeps in his garage an auto for repairs must take care of it as a prudent administrator, and return it to its owner. If he cannot do so, the burden of proof is on him to show irresistible force, or fortuitous event, and that in any case, there has been neither fault nor negligence on his part."

Similarly in an American case—Hobson vs. Silvea (California App. 194 Pacific 525). An employee at a service station was so negligent in filling the tank of a car with gasoline that as a result the gasoline ignited and the car was damaged. The owner of the car recovered damages against the owners of the service station. It must be understood, however, that in such a case the negligence or carelessness of the employee must be clearly established, and that negligence shown to be the cause of the accident. A garage owner would

not be responsible to a customer for this damage to the latter's car caused by a fire in the garage, if the fire was not caused by the negligence of the garage owner or his employees. Whether or not it was caused by such negligence, is a question of fact, to be established by the evidence in each case.

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Readers are at liberty to write in for help and advice in solving their legal problems. Enquiries will be answered through the mails and in these pages.

Every automobile dealer and garageman should know what he is liable for and what he is entitled to. It is the intention of Automotive Trade to discuss each month practical questions of business law as it affects the automotive dealer.

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## Fire Extinguisher Inoperative; Owner Can't Collect

A recent American case covers an interesting point. A car owner had been given a reduction of the premium on the fire insurance policy covering his car, in consideration of the covenant that a fire extinguisher would be kept on the car. The car was destroyed by fire, and the evidence showed that the fire extinguisher was empty and inoperative, having been exhausted at a previous fire. The Supreme Court of Arkansas held that the car owner under these circumstances could not recover from the insurance company. Union Marine Insurance Co. vs. High.

## Property Stolen From Garage

The owner of a garage is bound to exercise reasonable care to protect property stored in his place of business against loss from theft. Thus, a garageman was held liable for its loss when he assumed the custody of a car, and then allowed it to remain in an alley without using any precautions to protect it from being stolen.

But he is only responsible for lack of reasonable care, and in his capacity as garageman does not guarantee the owner that the property will not be stolen. For example in a recent case plaintiff left his motor cycle overnight with the defendant, a garageman, and the machine was stolen. The evidence showed that the plaintiff had advertised the motor cycle for sale and had so informed the defendant; he had also told the defendant that the machine could not be operated until repairs had been made. He had left his address with the defendant and had requested the latter to permit anyone to inspect the machine whom he might send around. The defendant allowed a man who presented a written permit from the plaintiff to inspect the machine, and the latter, getting it started, stole it. The plaintiff sued the garage-keeper for the cost of his machine, but the latter was held not liable.

In another decided case, a salesman who travelled in the automobile of his employer, left a case of samples with the porter of the garage where the automobile was kept, saying he would call for it later. He did not call for it until about three months had elapsed and in the meantime the garage business had moved to another place, the porter had quit his position, and the sample case lost. The garage owner was sued, but was held not liable upon the ground that there was no evidence to show that the porter was acting within the scope of his employment in looking after the sample case; and that there was no evidence to show that the garage owner or his office force had any knowledge of the custody, or even of the existence of the sample case until after its loss.

## KAUFFMAN RETIRES FROM I. H. C.

F. A. Kauffman, for more than twenty years head of the Domestic Collection Department of the International Harvester Co., and a member of the Harvester Company and one of its predecessors for almost thirty years, voluntarily retired December 1. William Matthews who has served as assistant manager of the Domestic Collection Department almost from the beginning of the company, succeeds Mr. Kauffman.



## 5-Passenger Big-Six Coupe New Addition to Studebaker Line

A FIVE-PASSENGER Big-Six Coupe is announced as the latest addition to the line of Studebaker motor cars. The new model includes such features as nickel-plated front and rear bumpers, automatic windshield wiper, rear-view mirror, motometer and ornamental radiator cap. Its appearance is further set off by the nickeled radiator shell.

The new coupe has a two-door body. Upholstery is of dark brown velour, with floor carpets, top lining and trimmings in harmony. A close-coupled effect is obtained in the seating arrangement, with accommodation for three adults in the rear seat. A folding seat is provided next to the driver for the fifth occupant—in reality, a comfortable chair, with padded arms, back and seat.

Other features include floor heater, thief-proof transmission lock, ventilator in cowl, automatic window regulators, silk roller curtains, three-piece rain-vision windshield with rain visor, jeweled eight-day clock, door locks and



Studebaker 5-Passenger Big-Six Coupe.

door pockets. A spacious compartment is provided under the rear deck for luggage.

Illumination includes massive headlights, side coach lamps, courtesy light on driver's side and opalescent corner reading lights.

Nine-inch deep seat cushions and long semi-elliptic springs, 38 inches in front and 56 inches in the rear, contribute to riding comfort. The wheelbase is 126 inches.

This coupe body is mounted upon the Studebaker Big-Six chassis.

## Two Sport Models Added by Moon

THE Moon Motor Car Co. recently announced two new sport models, a Six-40 sport touring, and a Six-55 sport touring, as additions to their line. The company can now offer eleven body types. Trimming and equipment on these sport models have been given special attention.

The features of the Six-40 model include nickel head lamps, nickel cowl lamps, nickel tail lamp and nickel windshield, polished aluminum body rail and trunk rack including trunk; six disteel wheels, two spares mounted at front, khaki top, leather and body in distinc-

tive Moon Sport color with two line stripe. Aluminum step plates with rubber pads add a factor of safety as well as neatness of trim in completing the car's sport features.

The Six-55 Sport Touring is a larger car of longer wheelbase. Features which make it definitely serviceable for touring are its low running gear, trunk rack and disteel wheel construction, with the two spare wheels mounted on the sides. The equipment also includes polished aluminum body rails, cowl lamps, individual steps and individual fenders.

Both models incorporate in their chas-

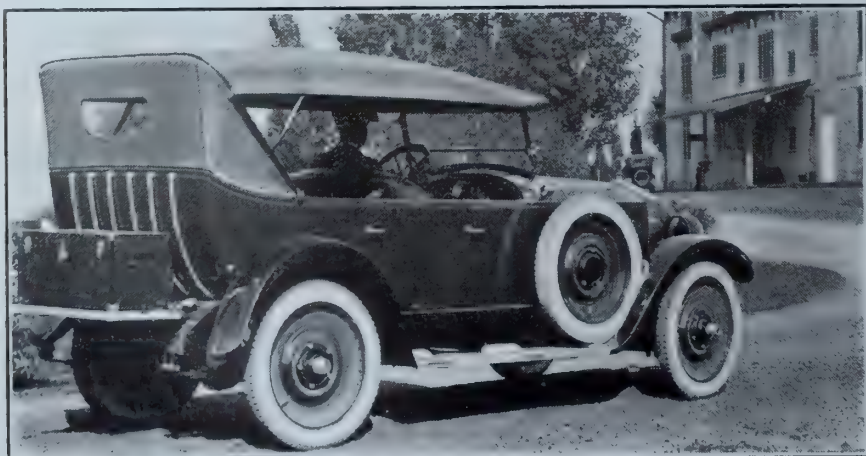
sis the mechanical units which have featured Moon cars in the past. Deliveries of these models are being made to dealers now.

### NEW INTERNATIONAL SPEED SEDAN

THE International Harvester Co. has announced a de luxe bus for club, hotel and resort use.

This body was designed with the idea of providing a bus body with three prime requisites; good looks, easy riding qualities, and sturdiness of construction.

The frames are constructed out of well seasoned oak and ash; 18 gauge auto body sheet steel panels are used. Regular sedan-type polished plate-glass windows lower into doors and panels. Double ventilating windshield, three doors on the right side of body and one to the front on left side of body, four crosswise seats with deep backs and eight-inch cushions are features which make this a high-class body. The third seat is divided to allow entrance to the rear seat. Four adults can comfortably sit on each seat, thus making a 15-passenger job. The upholstery is of leather and the body is lined throughout with textile leather. Above the body line, the top and deck are covered with dark maroon textile leather and the body is painted in dark maroon. The length of body is 150 in. over all. The width is 72 in. over all and 66 in. in the clear in the inside.



Six-40 Sport Touring, recently added by Moon.



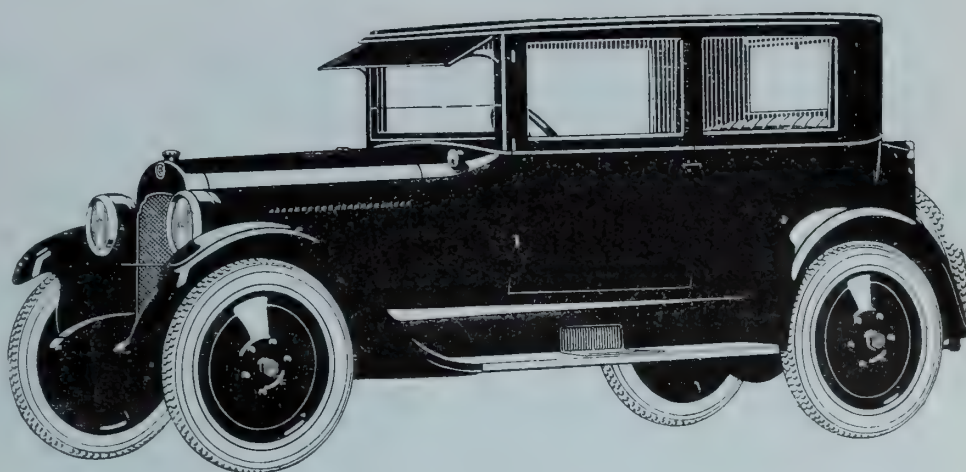
## New Chalmers Six Coach Announced

A NEW Chalmers Six coach has just been put on the market. It is a five-passenger, seating five adults comfortably.

Features of special note in the design are found in the unusual width of the body, the broad doors, the front seats which fold and tip forward. The driver's chair clears completely the steering wheel and wide windows all around offer clear view for all passengers.

The body is maroon with black superstructure. A carmine stripe on maroon runs around the body several inches below the belt. The wheels are black disk with maroon trimming giving a distinctive appearance. Special attention has been given the fabric covering of the rear and rear side panels. Seams are eliminated by running fabric cut in one piece from side-window to the opposite side window.

The roof slopes at an angle to harmonize with the slope of the hood and is also covered with fabric. The interior trim is in broadcloth with hardware of satin finish. The door-window lifters are of the lever type raising or lowering the windows with less than a half turn. Rear quarter windows are operated by a strap arrangement.



Chalmers Six Five-Passenger Coach.

A large trunk with trunk rack is mounted at the rear, and is supplied with a dust cover. Wooden trunk bar of natural finish protects the body finish. Other equipment includes parking lights, windshield cleaner, dome light, non-skid cord tires, five disk wheels and

heater. The upper glass of the windshield is hinged from the top, and lowers from the bottom. Both sections swing outward, and by this arrangement ventilation is controlled.

The mechanical features are the same as on other Chalmers models.

## Gray Produces Small Cars

THE Gray Motor Corp. have announced a new small car which will be sold in Canada around \$800 delivered. The new model, which will be known as the "Gray," will be produced in three body types, touring, roadster, and coach. The touring is a five-passenger car with pleasing lines. The roadster was built with the needs of the business man in mind and has the same graceful lines of the touring. An unusually spacious rear compartment is provided. This is removable and may be replaced by any

type of light commercial body. The coach combines closed car comfort and economy features with a modern design. It is light in weight and of sturdy construction.

The motor is four-cylinder, L-head type, with 3½ in. bore and 4 in. stroke. It develops 20-25 H.P. Cooling is by thermo-siphon with large water head and radiator of fine type. Westinghouse starting and lighting system is used. The rear axle is Timken, semi-floating.

Other features are: Scoe carburetor, centrifugal splash system of lubrication, Timken bearings, worm and gear adjustable steering gear, drum headlights with dimmers and non-glare lenses, semi cantilever springs in front and double in rear, pressed steel frame 4½ in. deep with 1½ in. flange and rear tubular cross-member, tires 30 x 3½ with demountable rims, artillery type wheels. The wheelbase is 100 in. Equipment includes electric horn, full kit of tools with jack, spare rim on rear. The weight of the touring car is 1,570 pounds.

Wm. Gray Sons, Campbell Ltd., Chatham, Ontario, will distribute this car in Canada.



The Gray Car.

### USED CAR MANUAL FOR DEALERS

THE National Association of Automobile Show and Association Managers, New York, is preparing a manual of used car co-operation for distribution to the trade, intended to assist dealer associations or groups of dealers to work together for the profitable handling of used cars. It will be made available for dealer association secretaries and others desiring it at a nominal price, covering the cost of compilation and publication.

Manual was compiled by a committee composed of heads of dealers' associations and the editor of "Motor World."



# Specifications of Current Passenger Cars

Except where indicated the prices

NAME AND MODEL	Wheel-base	Engine Make	Cylinders Bore and Stroke	Radiator	Lubrication	Carburetor	Starting and Lighting	Ignition	Battery	Brake-lining
Cadillac 61	132	Own.....	8-3 1/2x5 1/4	Own.....	Force Feed	Own.....	Delco.....	Delco.....	Exide.....	Raybestos & Thermoid
Chalmers 35-C	117	Own.....	6-3 1/4x4 1/2	.....	Cir. Splash	Stromberg	Auto-Lite	Remy.....	Prest-o-Lite	.....
Chalmers 35-C	122	Own.....	6-3 1/4x4 1/2	.....	Cir. Splash	Stromberg	Auto-Lite	Remy.....	Prest-o-Lite	.....
Chandler Six	123	Own.....	6-3 1/2x5	Cellular	Cir. Splash	Rayfield	Bosch	Bosch	.....	.....
Chevrolet Superior	102	Own.....	4-3 11/16x4	.....	Cir. Splash	Zenith	Auto-Lite	Remy.....	Willard..	.....
Cleveland 41	112	Own.....	6-3 1/16x4 1/2	.....	Cir. Splash	Stromberg	Bosch	Bosch	Prest-o-Lite	.....
Cole 890	127 1/2	Northway	8-3 1/2x4 1/2	McCord	Cir. Splash	Johnson	Delco	Delco	Willard	Thermoid...
Columbia Elite	115	Cont.....	6-3 1/2x4 1/2	.....	Cir. Splash	Stromberg	Auto-Lite	A. K.	Prest-o-Lite	.....
Columbia Light Six	115	Cont.....	6-3 1/2x4 1/2	.....	Cir. Splash	Stromberg	Auto-Lite	A. K.	Prest-o-Lite	.....
Dodge Brothers	114	Own.....	4-3 1/2x4 1/2	McCord	Cir. Splash	Stewart	North East	North East	Willard	.....
Durant A22	109	Cont.....	4-3 1/2x4 1/2	.....	Cir. Splash	Tillotson	Auto-Lite	U. S. L.	.....	.....
Durant B22	123 1/2	Ansted	6-3 1/2x4 1/2	.....	.....	Rayfield	Auto-Lite	Auto-Lite	U. S. L.	.....
Davis 71	114	Cont.....	6-3 1/2x4 1/2	.....	.....	Stromberg	Delco	Delco	.....	.....
Davis 61-67	120	Cont.....	6-3 1/2x4 1/2	.....	.....	Stromberg	Delco	Delco	.....	.....
Earl 40	112	Own.....	4-3 7/16x5 1/4	Sparton	Cir. Splash	Scoe	Auto-Light	Connecticut	U. S. L.	.....
Essex 108 1/2	108 1/2	Own.....	4-3 1/2x5	.....	Cir. Splash	Own	Bosch	Bosch	Exide	.....
Ford T	100	Own.....	4-3 1/2x4	.....	Cir. Splash	Holley	Own	Own	Exide	.....
Franklin 10	115	Own.....	6-3 1/2x4	.....	Pressure	Own	North East	A. K.	Willard	Thermoid
Gardner T-R. & G	112	Lycoming	4-3 1/2x5	Fedders	Splash	Carter	West	West	Willard	Testbestos
Gray-Dort 19-14	108	D-Ly	4-3 1/2x5	.....	Cir. Splash	Carter	Bosch	Connecticut	Hart	.....
Haynes 75	132	Own.....	6-3 1/2x5	Fedders	Pressure	Stromberg	Leech-Neville	Kingston	Prest-o-Lite	Testbestos
Haynes 55	121	Own.....	6-3 1/2x5	Fedders	Cir. Splash	Rayfield	Leech-Neville	Kingston	Prest-o-Lite	Testbestos
Hudson Super-Six	126	Own.....	6-3 1/2x5	.....	Cir. Splash	Own	Bosch	Bosch	Exide	.....
Hupmobile Series R	112	Own.....	4-3 1/2x5 1/2	McCord	Force Feed	Stromberg	West	A.K.	Willard	.....
Jewett Six	112	Own.....	6-3 1/2x5	.....	.....	.....	.....	.....	.....	.....
Lexington 23	123	Ansted	6-3 1/2x4 1/2	.....	Force Feed	Rayfield	G. & D.	Connecticut	Willard	.....
Liberty 10D	117	Own.....	6-3 1/2x5	.....	Force Feed	Stromberg	Wagner	Wagner	Prest-o-Lite	.....
Lincoln 136	136	Own.....	8-3 1/2x5	McCord	Force Feed	Stromberg	Delco	Delco	Exide	Raybestos
Marmon 34	136	Own.....	6-3 1/2x5 1/2	Own	Force Feed	Stromberg	Delco	Delco	Willard	.....
Maxwell 109	109	Own.....	4-3 1/2x4 1/2	.....	Cir. Splash	Eagle	Auto-Lite	Simms	Prest-o-Lite	Raybestos
Moon 6-40	115	Cont.....	6-3 1/2x4 1/2	Fedders	Force Feed	Rayfield	Delco	Delco	Exide	Raybestos
Moon 6-58	128	Cont.....	6-3 1/2x5 1/4	.....	Force Feed	Rayfield	Delco	Delco	Exide	.....
McLaughlin 1923-34-35-36-37-38	109	Own.....	4-3 1/2x4 1/2	.....	Cir. Splash	Marvel	Delco	Delco	Exide	.....
McLaughlin 1923-41-44-45-47	118	Own.....	6-3 1/2x4 1/2	.....	Cir. Splash	Marvel	Delco	Delco	Exide	.....
McLaughlin 1923-48-49-50-54-59	124	Own.....	6-3 1/2x4 1/2	.....	Cir. Splash	Marvel	Delco	Delco	Exide	.....
Nash 691-96-97	121	Own.....	6-3 1/2x5	Long	Spl. & F. feed	Marvel	Delco	Delco	Willard	.....
Nash 692-94-99	127	Own.....	6-3 1/2x5	.....	.....	Marvel	.....	.....	.....	.....
Nash Four	112	Own.....	4-3 1/2x5	.....	.....	Schebler	.....	.....	.....	.....
Oakland 6-44	115	Own.....	6-2 13/16x4 1/4	.....	Pressure	Marvel	Remy	Remy	.....	.....
Oldsmobile 43-A	115	Own.....	4-3 11/16x5 1/4	.....	Force Feed	Zenith	Auto-Lite	Remy	Willard	.....
Oldsmobile 47	115	Own.....	8-2 3/4x4 1/2	.....	Force Feed	Johnson	Delco	Delco	Willard	.....
Overland 4	100	Own.....	4-3 1/2x4	.....	Cir. Splash	Tillotson	Auto-Lite	Connecticut	Prest-o-Lite	.....
Packard Single Six	126	Own.....	.....	.....	Force Feed	Own	A.K.	Delco	Willard	.....
Packard Single Six	133	Own.....	6-3 1/2x5	.....	Force Feed	Own	A.K.	Delco	Willard	.....
Packard Twin Six	136	Own.....	12-3x5	.....	Force Feed	Own	Bijur	Delco	Willard	.....
Parker 127	127	Cont.....	6-3 1/2x5 1/4	.....	Force Feed	Stromberg	Delco	Delco	.....	.....
Paige 6-44	119	Own.....	6-3 1/2x5	.....	Cir. Splash	Stromberg	Remy	A.K.	Willard	.....
Paige 6-66	131	Cont.....	6-3 1/2x5	.....	Force Feed	Rayfield	Remy	A.K.	Willard	Multibestos
Pierce Arrow	138	Own.....	6-4x5 1/2	Own	Force Feed	Own	Delco	Delco	Willard	Raybestos
Premier 6-D	126 1/2	Own.....	6-3 1/2x5 1/2	McCord	Force Feed	Johnson	Delco	Delco	Willard	.....
Reo T6 & U6	120	Own.....	6-3 3/16x5	Own	.....	Rayfield	North East	.....	Willard	Raybestos
Roamer 6-54-E	128	Cont.....	6-3 1/2x5 1/4	Hayes	.....	Stromberg	Bijur	Bosch	Columbia	.....
Roamer 4-75-E	128	Dues	4-4 1/4x6	Hayes	.....	.....	.....	.....	.....	.....
Rolls-Royce	143 1/2	Own.....	6-4 1/2x4 1/2	Own	Force Feed	Own	Bijur	Own	Exide	.....
Star 192	192	Cont.....	4-3 1/2x4 1/2	Fedders	Force Feed	Tillotson	Auto-Lite	Auto-Lite	.....	.....
Stephens 50	122	Own.....	6-3 1/2x4 1/2	.....	Force Feed	Tillotson	Auto-Lite	Connecticut	U. S. L.	.....
Studebaker Light Six	112	Own.....	6-3 1/2x4 1/2	.....	Cir. Splash	Stromberg	.....	.....	.....	.....
Studebaker Special Six	119	Own.....	6-3 1/2x5	.....	Cir. Splash	Stromberg	Wagner	Wagner	.....	.....
Studebaker Big Six	126	Own.....	6-3 1/2x5	.....	Cir. Splash	B. & B.	Wagner	Wagner	.....	.....
Vauxhall	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Westcott B-44	120	Cont.....	6-3 1/2x4 1/2	.....	Force Feed	.....	Delco	Delco	Willard	.....
Westcott D 48	125	Cont.....	6-3 1/2x4 1/2	.....	.....	Rayfield	Delco	Delco	.....	.....
Westcott C-38	.....	Cont.....	6-3 1/2x5 1/4	.....	.....	Rayfield	Delco	Delco	.....	.....
Willys-Knight 20	118	Own.....	4-3 1/2x4 1/2	Own	Cir. Splash	Tillotson	Auto-Lite	Connecticut	U. S. L.	.....
Willys-Knight 27	124	Own.....	4-3 1/2x4 1/2	Own	Force Feed	Tillotson	Auto-Lite	.....	U. S. L.	.....
Wills Sainte Claire A-68	121	Own.....	8-3 1/4x4	.....	Force Feed	Zenith	Delco	Delco	Willard	.....

ENGINE MAKE: Cont., Continental; Dues., Duesenberg. LUBRICATION: Cir. Splash, circulating splash. STARTING AND LIGHTING: A. K. Atwater-Kent; G. & D., Gray & Davis; West, Westinghouse. IGNITION: A. K., Atwater-Kent; West., Westinghouse. CLUTCH TYPE: d-disk, dry-disk. CLUTCH MAKE: B. & B., Borg. & Beck.



# Sold In Canada. Prices F.O.B. Toronto

quoted include all taxes.

CLUTCH		Tires	PRICES							NAME AND MODEL
Type	Make		Two Passenger	Four Passenger	Five Passenger	Seven Passenger	Coupe	Sedan	Limousine	
d-disk	Own	33x5	\$4,700	\$4,700		\$4,700	\$6,100	\$6,375	\$7,150	Cadillac..... 61
d-disk	Own	32x4	1,925		1,925		3,335	3,795		Chalmers..... 35-C
disk	Own	32x4				2,200				Chalmers..... 35-C
plate	B. & B.	33x4								Chandler..... Six
cone	Own	30x3 1/2	H 695 K		710		910	1,125		Chevrolet..... Superior
plate	B. & B.	32x4								Cleveland..... 41
cone	Northway	33x5								Cole..... 850
d-disk	B. & B.	32x4	2,315	2,315	2,315		2,995	3,125		Columbia..... Elite
d-disk	B. & B.	31x4	1,695		1,595	1,770	1,920	2,315		Columbia..... Light Six
d-disk	Own	32x4	1,425				W 1,625	2,400 } 1,975 }		Dodge Brothers.....
plate	Own	31x4	H 1,280 K		1,280		1,750	1,800		Durant..... A22
plate	Own	32x4 1/2	H 2,050 K		2,100		2,900	3,100		Durant..... B22
plate	B. & B.	31x4								Davis..... 71
plate	B. & B.	32x4								Davis..... 61
d-disk	B. & B.	32x4	2,250		1,695		2,175	2,750		Earl..... 40
o-disk	Own	32x4			1,600		1,745	1,900		Essex.....
o-disk	Own	30x3 1/2	H S 490 K		S 530		695	785		Ford..... T
plate	B. & B.	32x4	3,050		3,150		4,400	4,550	5,050	Franklin..... 10
plate	B. & B.	32x4								Gardner..... T-R. & G
d-disk	Detlozf.	31x4	1,360		1,360	E. 1,635	2,080	2,190	2,350	Gray-Dort..... 19-14
d-disk	B. & B.	33x5								Haynes..... 75
d-disk	B. & B.	32x4 1/2								Haynes..... 55
o-disk	Own	34x4 1/2		2,325	2,485	2,400	3,930	3,505		Hudson..... Super-Six
d-disk	Own	32x4	1,750		1,750		2,525	2,750		Hupmobile..... Series R
		31x4	1,565		1,565		2,300	2,335		Jewett..... Six
d-disk	Ansted	32x4 1/2								Lexington..... 23
d-disk	B. & B.	32x4								Liberty..... 10D
d-disk	Own	33x5	H 6,100 K			6,100	7,100	7,600	8,200	Lincoln.....
d-disk	Own	32x4 1/2								Marmon..... 34
cone	Own	31x4	1,395		1,395		1,895	2,075		Maxwell.....
d-disk	B. & B.	31x4			2,045			2,675		Moon..... 6-40
d-disk	B. & B.	33x4 1/2	2,975		2,815			3,895		Moon..... 6-58
d-disk	Own	31x4	H 1,275 K		1,235	E. 1,855	1,645	1,950		McLaughlin..... 1923-34-35-36-37-38
d-disk	Own	33x4	H 1,695 K		1,725		E. 2,725	2,795		McLaughlin..... 1923-41-44-45-7
d-disk	Own	34x4 1/2	H. C. 2,295 K		2,095	E2,375	2,675	3,095		McLaughlin..... 1923-48-9-50-54-55
plate	B. & B.	33x4	1,925	2,625	1,945					Nash..... 691-96-97
		34x4 1/2				2,295	3,125	3,555		Nash..... 692-94-95
plate	B. & B.	33x4	1,545		1,565		A. 2,165	2,550		Nash Four.....
cone		32x4	H 1,395 K	C. 1,645 H	1,425 H		H. 2,095	H. 2,195		Oakland..... 6-44
d-disk	B. & B.	32x4		H. 1,355 K	1,375		2,065	2,245		Oldsmobile..... 43-A
d-disk	B. & B.	32x4	H. C. 2,295 K	1,895	1,895		2,595	2,795		Oldsmobile..... 47
plate	Own	30x3 1/2	K 785		785		1,095	1,295		Overland..... 4
d-disk	Own	33x4 1/2	3,935	C 4,200	3,935		5,050	5,210	5,290	Packard..... Single Six
d-disk	Own	33x4 1/2				4,260		5,615	5,695	Packard..... Single Six
d-disk	Own	35x5	6,070	6,070		6,070	8,290	8,545	8,345	Packard..... Twin Six
d-disk	B. & B.	32x4 1/2	T. 3,475		3,475	3,475	4,300	4,650		Parker.....
plate	B. & B.	32x4			2,330					Paige..... 6-44
plate	B. & B.	33x4 1/2	A 3,950	C. 3,590		3,490	4,950	5,040	5,350	Paige..... 6-66
d-disk	Own	33x5	7,800	7,800		7,800	10,300	10,400	10,500	Pierce Arrow.....
d-disk	B. & B.	32x4 1/2								Premier..... 6-D
d-disk	Own	33x4		C. 2,600	2,350		2,900	3,890		Reo..... T6 & U6
plate	B. & B.	32x4 1/2								Roamer..... 6-54-E
		32x4 1/2								Roamer..... 4-75-E
cone	Own	33x5								Rolls-Royce.....
plate		30x3 1/2	H.S. 580 K		S 620		S. 840	S. 930		Star.....
d-disk	B. & B.	33x4 1/2	T. 2,750	2,775	C 2,900		3,990	4,275		Stephens..... 90
d-disk	Own	32x4	A. 1,560		1,560		2,000	2,500		Studebaker..... Light Six
plate	Own	32x4	2,000	2,025	2,025		3,100	3,325		Studebaker..... Special Six
plate	Own	33x4 1/2		2,825	2,575		3,575	3,800		Studebaker..... Big Six
plate	B. & B.	32x4			2,495	2,695		3,795		Vauxhall.....
plate	Warner	32x4 1/2			2,795			3,995	1,295	Westcott..... B-44
plate	B. & B.	33x4					3,595	3,595		Westcott..... D-48
plate	Own	33x4	K. 1,800		1,800		2,650	2,800		Westcott..... C-38
d-disk	Own	32x4 1/2			2,100			3,200		Willys-Knight..... 20
d-disk		32x4 1/2	3,775				4,950	5,250	5,900	Willys-Knight..... 27
										Wills Sainte Claire..... A-68

A, 3-passenger; B, 6-passenger; C, sport; E, touring sedan; H, F.O.B. Canadian Factory Price on all models; K, taxes extra on all models; S, price with starter; T, F.O.B. Montreal; V, business sedan; W., Business Coupe.



# Automotive News From Maritimes

NO business in the maritime provinces has shown such a marked advance through the period of universal business decline since the ending of the war, following in the inflation and abnormalcy of conditions during the great conflict, than the motor trade. It has progressed instead of standing still or retrograding.

For instance is cited the City of St. John. Ten years ago there were fifteen garages. Now there are forty garages, and at least four new garages promised for next spring. Ten years ago there were fifteen gasoline tanks in St. John. Ten years ago, there were but two vulcanizing shops in St. John. Now there are fifteen of these shops. Ten years ago there were but six repair shops. Now there are forty-five repair shops. Ten years ago there were but twelve makes of cars sold in St. John. Now there are fifty makes of cars sold. Ten years ago there were but four sales-rooms. Now there are thirty sales-rooms. Ten years ago there were but two accessory and supply stores. Now there are thirty of these stores in St. John. Ten years ago there were but three tire agencies in St. John. Now fifteen tire manufacturing companies are represented.

St. John has developed a large transient trade because of the American traffic passing through the city during the summer and early fall. The garage business of 1922 exhibited improvement over that of 1921 despite the large number of garages, some of these garages being especially large.

## Used Car Situation

St. John has also become a centre for the used car trade. Ten years ago the used car business in St. John was negligible. Now there are a dozen

firms specializing in used cars. Prospects are for added improvement in the marketing of used cars in view of the reductions in the prices and the improvement generally noticed in industrial conditions in the maritime provinces. The sale of used small cars to farmers starting in the spring of 1923 is expected to reach bigger proportions than ever.

Distributors for the Moon Cars are being appointed through the maritime provinces. At the present time, Jack McKenna's Garage, Sydney, is handling the maritime territory.

Dimock and Company, operating a garage in St. John, are selling Beaver trucks in New Brunswick territory. Dimock and Company is a new concern, with headquarters on Clarence Street.

W. B. Sampson whose garage was destroyed by fire recently in St. Stephen, will rebuild. Mr. Sampson is also the Ford distributor for Charlotte county section of New Brunswick.

J. W. Rusk, recently appointed manager of the Ford Manufacturing Company's district office in St. John, was bereaved in the loss of his father who died in Ireland while on a visit there. The elder Rusk was for more than thirty years in the employ of the C. N. R. freight department in St. John.

Nillson and Stewart, operating a repair shop on Prince Edward Street, St. John, had a fine spring, summer and fall. This firm is in the first year of its existence but for two years previously, D. Stewart, one of the members of the firm, conducted a motor repair business at the same stand under the name of the East End Repair Shop.

The Magaguadavic Garage, in St. Stephen, has been renamed the Central Garage. This is one of the oldest garages along the Maine and New Bruns-

wick frontier. A bus service is operated between this garage and the Magaguadavic Garage in St. George.

K & S tires are now being distributed in New Brunswick by C. A. Munro of St. John.

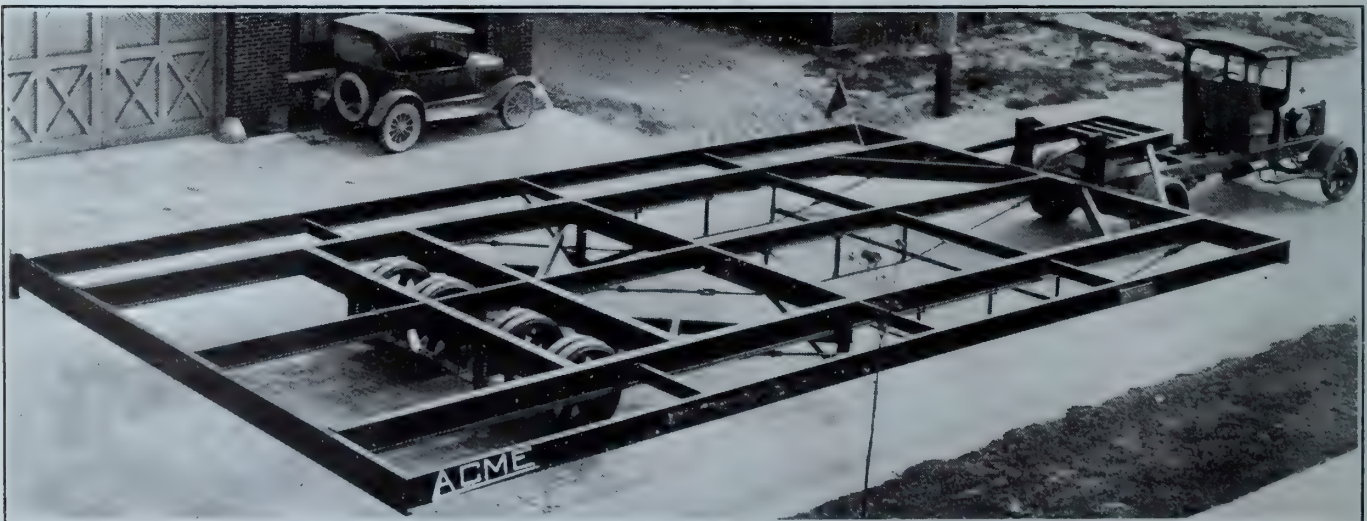
The Gray-Dort agency is now occupying the entire street floor of old St. Malachi's Building at the corner of Sydney and Leinster Streets in St. John. Pirie and Sons are the agents in New Brunswick territory.

## TRUCK USED TO MOVE VILLAGE

A TRAILER of unusual design built by the Acme Motor Truck Co. of Cadillac, Mich., was used recently in a unique job—moving practically an entire village a distance of eleven miles. The houses moved varied in size from 24 by 30 ft. to 24 by 40 ft. The weight of the houses varied from 15 to 35 tons and the eleven-mile trip was made in about four hours.

The trailer is constructed with a framework of heavy structural steel beams. A platform of channel and I-beams, raised 18 inches above the trailer frame and rigidly connected with it, transfers the load at the forward end of the trailer to a rocking fifth wheel mounted on the truck. The trailer frame is supported at the rear by four steel truck wheels, abreast, equipped with solid rubber tires. These wheels are placed so that they carry approximately 75 per cent. of the entire load. The trailer is hauled by a specially built truck, driven by 55-horsepower gasoline engine.

Each house was raised by a series of jacks at each side. The trailer was then backed underneath the building, after which the house was lowered until it rested evenly on the trailer frame.



This trailer, built by Acme Motor Truck Co., was used to move a whole village recently.



# "Red Baby"



## Face the New Year---PREPARED!

A new year is ahead, and with it will come thoughts of a new selling season—a more active season than ever before. Throughout the Dominion hundreds of McCormick-Deering dealers will look to their stocks and their selling facilities—and in a great many instances, to their "Red Baby" Sales and Service Trucks.

The far-seeing merchants who adopted the "Red Baby" some months ago realized the value of suitable equipment for selling and servicing modern farm machines. They had put in years of effort attempting to cover their extensive territories adequately with out-dated horse or motor equipment. When the "Red Baby" sales and service plan was laid before them, they adopted it with enthusiasm. And

their sales records for the past year indicate the wisdom of their choice.

In the coming year these men will go ahead with their modern methods of merchandising—confident of more than usual success. Theirs is a new view of the farm machine business—and the "Red Baby" is largely responsible.

If you have not already joined the ranks of "Red Baby" owners and enthusiasts, why not make such a move a part of your New Year plans? There is much good business ahead for the energetic McCormick-Deering dealer. And a "Red Baby" will widen the scope of your activities. You can ask the blockman to explain the plan to you, or you may write to us for complete information. Face the New Year—prepared!

**INTERNATIONAL HARVESTER COMPANY**

OF CANADA LTD

HAMILTON CANADA

16 BRANCH HOUSES IN THE DOMINION



# Shop Notes for the Garage Man

## WELDING BROKEN CRANKSHAFT

By Geo. Barrett

THE sketch at Fig. 1 illustrates a broken crankshaft set in alignment ready for welding. In setting the crankshaft it is important that the connecting rod journals are set back to their original position. This is ac-

complished by having three Vee blocks, A, which are set on a level surface and placed so as to fit into the crank bearing. In this particular case, where the crank is broken at the first web, the reader will understand, that when the bearings B and C are clamped in place by the clamp plates, D, there will be three connecting rod bearings in correct alignment.

The remaining portion E is next held by block A and set at the same height as bearing F. The setting of both bearings to the same height is accom-

plished by using a surface gauge, and adjusting gauge to the required distance of F, then bringing bearing E in position just enough to touch lightly the

point of surface gauge. This will correct the height of both bearings.

The next step is to get all crank bearings in alignment. This is accomplished by placing a straight-edge across the two centers connecting rod bearings, and bringing the four points marked with an arrow to measure exactly the same distance from the straight-edge.

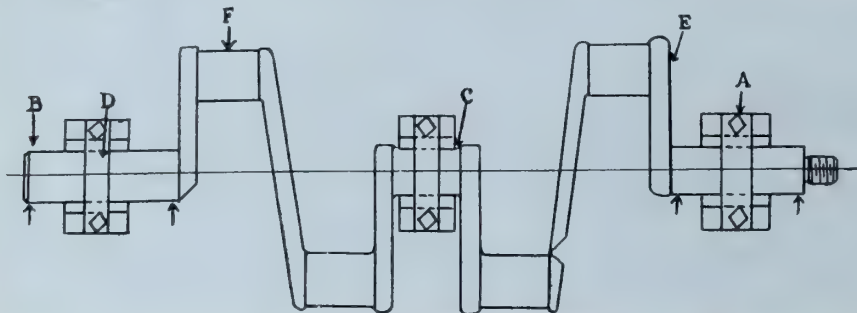


Fig. 1—Broken Crankshaft Alignment.

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## TEN COMMANDMENTS IN VULCANIZING

1. ALL fabric surfaces must be dry before applying cement.
2. The first coat of cement must be applied thin.
3. Cushion stock must be applied in every case regardless of size of repair.
4. It is necessary, after building up the injured part of the tire, that all the air be removed from the fabric, cushion and breaker fabric before applying the tread stock.
5. It is absolutely necessary to work according to specifications laid down by the factory in curing our repair materials.
6. It is not possible to mix cements, fabrics and gums of different manufacture and get good results.
7. Steam gauges must be tested often to get accurate knowledge of temperature. We advise the use of a thermometer.
8. Vulcanizing equipments should be

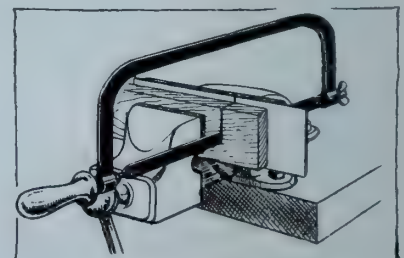
## MOON MOTOR'S, 1923—ORDERS DOUBLE 1922 PRODUCTION

MOON Motor Car distributors, assembled at St. Louis recently from all sections of the country, placed orders for 15,625 cars for 1923 delivery. This is double the 1922 output which will approximate 7,500 cars and is beyond the company's present productive capacity.

Officials of the Moon Company had planned on making 10,000 cars next year which covers existing plant capacity. Additional manufacturing facilities can be erected at moderate cost to enable the company to fill prospective 1923 orders if the management desires to make the required expenditure.

## SAVING SHEET METAL

SHEET metal can be sawn through quite easily with a fine hacksaw if it be supported at each side by a piece of fairly hard wood, as shown in the sketch. It is better, however, for the well-being of the saw teeth to keep handle end of the frame lower than the other end during the sawing, as the edge of the metal which meets the saw teeth on the cutting strokes is then of a less acute



angle. Actually, by the way, there is no need for the wood to project so far beyond the cut as the artist has shown; in fact, when there is need to follow carefully a marked line on the metal, the wood need not be arranged "outside" the mark at all, but merely brought as close as possible to it to afford support adjacent to the projected cut.

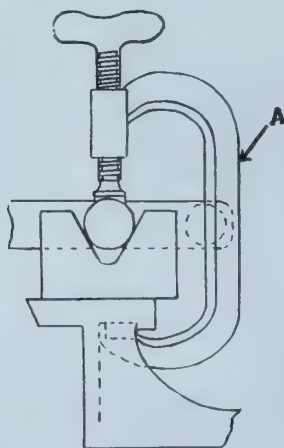
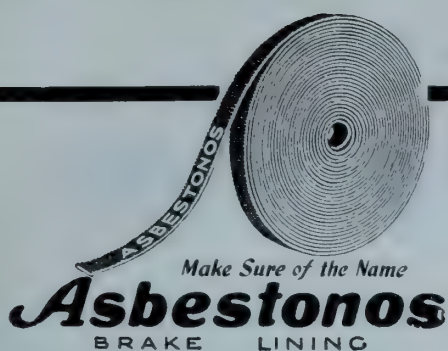


Fig. 2.

plished by using a surface gauge, and adjusting gauge to the required distance of F, then bringing bearing E in position just enough to touch lightly the





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FINISHED PRODUCT  
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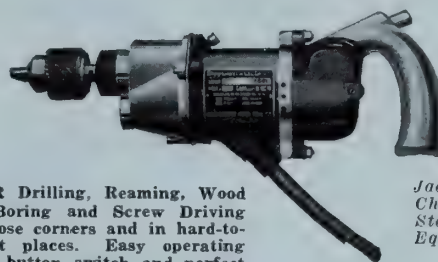
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in close corners and in hard-to-  
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*for* ALL CONDITIONS

Types and Capacities Four Wheel, reversible and non-  
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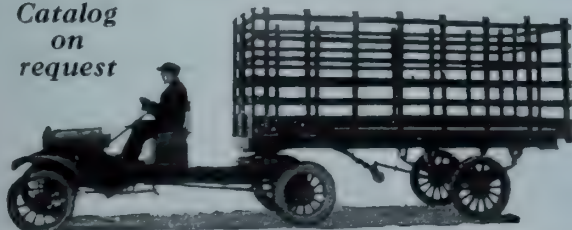
.....	1 to 7 tons
Semi.....	1 to 10 tons
Pole.....	1 to 10 tons
Two Wheel.....	1 to 3 tons

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Kitchener, Ontario

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# New Automotive Equipment

## "COMFY" ARM RESTS

THESE rests are adapted for Ford, Hudson, Essex and Studebaker sedans and coupes. The cushions are made of black leather and are well upholstered. Aluminum polished arms fit into the sides of the car snugly. Made by the Sterling Auto Devices Co.

## IDEAL FOOT ACCELERATOR REST

THIS device is made of aluminum and has a heavy spring so that the foot rests at all times yet does not touch the gas pedal until pressure is brought. It is eleven inches long and made to fit any car. Made by Sterling Auto Devices Co.

## ANN ARBOR AUTOMATIC GARAGE DOOR HOLDER

THESE door holders are automatic in action. They are easily and quickly installed. They are made of channelled steel, are strong and durable, and finished with a dust-proof ebony lustre finish. Made by Knowlson-Stevenson Co.

## WEED SAFETY BUMPERS FOR FORDS

WEED bumpers are made of 1 $\frac{3}{4}$ -in. spring steel, hardened in oil and tempered. They are so designed that they absorb the heaviest smash and prevent other bumpers from going under, over or in between. They fit all models of Ford cars, front and rear, and do not interfere with shock absorbers or any working parts. Manufactured by the Dominion Chain Company, Niagara Falls, Ont.

## FYRAC HEATER

A NEW heating device for Ford cars, known as the Fyrac heater, has been brought out by the Fyrac Manufacturing Company.

The heater attaches to the Ford manifold and carries the heat through a metal pipe to an outlet on the dash. The heat can be instantly regulated by the driver, or may be shut off entirely when desired. The device is simple in construction and strongly made. It fits any Ford model and can be installed in fifteen minutes.



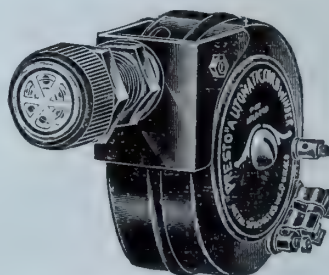
Schlaich Cap Lock.



Ideal Foot Accelerator Rest.



Automatic Garage Door Holder.



Presto Cigar Lighter.



Weed Safety Bumpers.

## SCHLAICH CAP LOCK

A LOCK for protecting the Moto-Meter against theft and breakage. The parts used are steam and water tight and rust-proof. The hinged cap permits filling the radiator without removing the Moto-Meter. They are made in three sizes to fit all makes of cars, with special inset for different sizes of filler nicks. Letters and emblems are furnished for installation on the caps. Made by J. C. McAdams Co.

## PRESTO CIGAR LIGHTER

THIS cigar lighter is concealed behind the dash and automatically rewinds when the cord is returned and automatically lights when the cord is drawn out. The cord is long enough to allow its use by all occupants of the car and a full size lighting element lights any cigar. A safety fuse protects the battery from possible short circuit. Distributed by Jos. St. Mars, Toronto and Winnipeg.

## NEACO SAFETY GAS TANK CAP

THE Non-Explosive Appliance Co. have placed on the market a gas tank cap which is of instant action. It eliminates the wasting of time and the annoyance of crossed or ruined threads and the possibility of forgetting the cap or losing it. In filling the gas tank the lid is lifted and the nozzle or funnel inserted and when they are withdrawn the cap automatically snaps into position. The cap is so constructed that while the necessary air-hole is provided special gaskets used prevent leakage or splashing in rough driving. The cap also eliminates the possibility of explosion in case of fire, by automatically raising itself under pressure of the expanding vapors and permitting the escape of the dangerous gases. In case the gas should become ignited during the filling operation, by letting the cap snap shut the fire will be kept under control. Lugs are placed at intervals around the opening of the cap into the tank to prevent the nozzle from completely blocking the opening when the tank is being filled, and to allow an ample air vent during this operation.

Caps are made for McLaughlin, Buick six, Studebaker Big Six, Studebaker special six, Dodge, Chevrolet, and Ford.



## Salesmen Wanted

We want to form connections in various parts of Canada with reliable hustling Salesmen who are willing to put some "pep" into their work and build up a good business for themselves. We have no "get rich quick" proposition, but an honest to goodness seller in the hands of the right men, one that will show you good profits.

We are the manufacturers of the ELECTRION Power and Light Plants for the farm, summer home, church, etc., and need some live representatives to work with us.

Your territory may still be open. If so, we have a good opportunity for you. Write us about yourself—if you are the right man we want you.

**Canadian Linderman Company**  
Limited  
Woodstock, Ontario

## As a Man is Judged by the Company He Keeps—

So is a company judged by the people with whom it does business—in other words—you would have a very poor opinion of any company who would try to sell you an article which you knew to be made by a concern producing an inferior product. The chances are that you would lose confidence in such a firm.

## "HAYES" WHEELS, HUBS, RIMS, AXLES, FORGINGS and STAMPINGS

are manufactured exclusively for those who demand a better than the ordinary product.

The name "Hayes" always has stood for quality and you may purchase with confidence any automobile having "Hayes" products in its construction.

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You can increase your service profits this winter by sending radiators to us for inspection and repair. Send them by express or freight prepaid. They will be inspected and an estimated cost of repair will be sent immediately. Repairs and re-shipment are made promptly. A letter of enquiry will bring complete information of this repair service.

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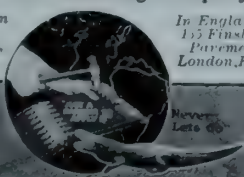
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## WedgeRite Piston Rings

The standard by which all rings expanding in the groove are judged. WedgeRite piston rings today are better than ever and in addition to this the WEDGERITE PISTON RING is first to reach a SCIENTIFICALLY correct degree of FULL FLEXIBILITY insuring a uniform wall and groove pressure.

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Montreal - Canada



# Shop Equipment

## BEARD INSIDE MICROMETER GAUGE

THE body of this micrometer is a sliding fit in the bushing of the aligning base, to allow adjustment for different size holes. It also allows the base to slide forward on the body of the micrometer so that it can be tilted to remove the micrometer from the cylinder. The spindle of the micrometer is locked by means of a clamping screw, having a brass plug between the thread of the spindle and the clamping screw. Both ends of the micrometer are hardened and ground. The parallel edges of the aligning base are hardened and ground.

The gauge is self-aligning and self-centering, by holding the base against the cylinder wall and turning the knurled spindle to the right it touches the opposite wall, gives direct reading in .001 of an inch, one complete revolution of the spindle indicates .050 of an inch advance of the screw. Each graduation of the barrel represents .001 of an inch. Made by the L. O. Beard Tool Co.

## WALKER BADGER LONG HANDLE JACK

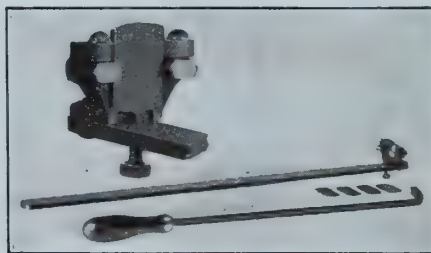
FEATURES of this jack are strength and adaptability. It can be placed under any part of the front or rear axle. The handle is thirty-six inches long. Distributed by Jos. St. Mars, Toronto and Winnipeg.

## COMBINATION PLATE PRESS BURNING STAND

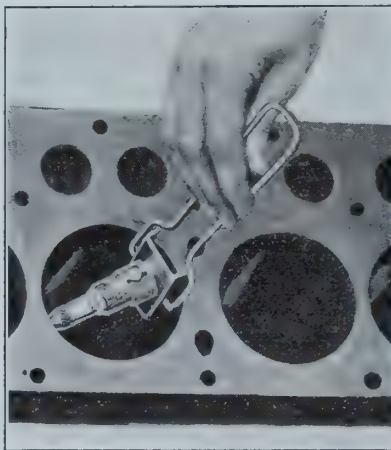
A RAPID action plate press of great power has recently been developed by S. R. M. Orum, Inc. It is easily converted to a burning stand by undoing the two top nuts and by taking off the cross bar, top plate and lead tray, and then assembling collars and burning irons provided.



Walker Badger Long Handle Jack.



Torit Cylinder Score Filling Process.



Beard Inside Micrometer Gauge.



Torit Torch.



Ace Aligning Gauge.

## TORIT TORCH

THIS torch is designed for repairing automobile radiators, batteries, etc. It uses acetylene from an acetylene tank. The outfit consists of a torch about ten inches long, weighing only a few ounces, a set of four tips, one of which is made especially long and slim for radiator work and battery repairing, a soldering copper which clamps over one of the tips, five feet of rubber hose and a connection for the Presto or Searchlight auto acetylene tank. With the long tip you can work between the fins of a radiator and solder up a leaking tube without cutting the fins away. With the large tip you can heat a two-round soldering copper in about a minute or braze a steel bar  $\frac{3}{4}$ -inch diameter. No air pressure is required. Made by the St. Paul Welding and Manufacturing Co., St. Paul, Minn.

## ACE ALIGNING GAUGE

THIS aligning gauge is for testing connecting rods, piston and piston pins. The column is made of cast iron and is machined on the bottom, face and sides. The spindle for bushings is of steel, hardened and ground, the aligning slide for piston pins is of cast iron. A steel spring gib operated by a thumb screw clamps the slide solidly to the column and can be quickly adjusted to the desired height.

The aligning slides are made in three sizes to fit all makes of connecting rods.

Special size bushings for use in scraping connecting rod bearings for worn and reground crank shafts can be furnished. Made by Mark W. Jones.

## TORIT CYLINDER SCORE FILLING PROCESS

THIS is an equipment and a method of filling scores in cast-iron cylinders. The outfit consists of a cleaning scraper of hardened tool steel for preparing the score and removing the oil and other material so that the cast-iron solder will combine with the cast-iron wall. The surfacing tool holder has five hardened steel surfacing blades for finishing the filling metal to the original curvature of the cylinder wall. The five blades have double edges, giving a range of ten sides of the cylinder diameters 3 to 5 in. They are made of high carbon tool steel, oil hardened and drawn through a temper. The blades fit into an adjustable holder which gages the amount of filling metal removed when finishing the work. Made by St. Paul Welding and Mfg. Co.



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*offers*

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FOR THE BEST DISPLAYS OF  
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<b>THIRD PRIZE—</b>	<b>3 year subscription</b>

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scribers in the  
retail trade*

Simply send us photographs of your display. Write your name and address on back of photographs. Photos should be 5 x 7 or larger. Entries will be judged first on their selling value (the first essential of good window display). Second on their novelty of idea or arrangement. Third, on their general attractiveness.

***Contest closes December 18th. Photographs to be mailed to reach us not later than December 23rd. Winners published in January number. Address all entries to***

The Contest Editor

**CANADIAN AUTOMOTIVE TRADE**

**143 UNIVERSITY AVE., TORONTO**



## CHANGES IN I. H. C. EXECUTIVE

SEVERAL changes in the executive organization of the International Harvester Company were made by the directors at a meeting recently.

Herbert F. Perkins, vice-president, formerly in charge of all manufacturing and raw materials operations, was assigned to assist the president in the administration and general management of the company's affairs and to be acting president in his absence. Mr. Perkins retains charge of the company's raw materials properties.

George A. Ranney, heretofore secretary and treasurer, was elected vice-president and treasurer. Mr. Ranney entered the service of the old McCormick company as cashier in 1898, and has been secretary and treasurer of the International Harvester Company since 1916.

W. M. Gale, heretofore assistant treasurer, was elected secretary.

The new office of director of engineering was created, and E. A. Johnston, heretofore manager of the experimental department, was appointed to fill it.

Cyrus McCormick, Jr., formerly works manager, was elected a vice-president and given charge of the company's manufacturing plants in the United States, Canada and Europe. Mr. McCormick is the elder son of Cyrus H. McCormick, chairman of the board of directors. He has been in the company's service since he was graduated from Princeton in 1912, working in several of the factories and in the company's sales organization in the field. Since 1919 he has been works manager in charge of tractor works, Chicago, and of the works at Milwaukee, Wis., and at Akron and Springfield, Ohio. The products of these works are tractors, motor trucks, engines and cream separators.

## CADILLAC CUTS PRICES ON ALL MODELS

THE Cadillac Motor Car Co. have made reductions on all models effective Dec. 1. The new prices are declared by President H. H. Rice to be the result of largely increased business during the year and to anticipations of still further increases during 1923. In connection with the change in price the company declares that the type 61 will be continued without change. The new and former prices are as follows—prices F. O.B. Toronto, taxes paid:

	Old Prices	New Prices
Touring Car .....	\$5,100	\$4,700
Phaeton .....	5,100	4,700
Roadster .....	5,025	4,700
Victoria .....	6,275	5,975
Coupe (5-passenger) ...	6,350	6,100
Sedan .....	6,650	6,375
Suburban .....	6,900	6,500
Limousine .....	7,450	6,950
Imperial Limousine ....	7,500	7,150

## Should We Have Larger Discounts?

DEALERS in every part of the country at the present time are complaining that there is not enough profit in handling cars. Some even go as far as to say that it is difficult to make even a small profit. They are good dealers, too.

In an endeavor to get at the facts of the case, Canadian Automotive Trade interviewed a large number of dealers and it was found in most cases the dealers had pretty well made up their minds that the problem had two aspects, lower costs of doing business, or increased discounts.

One dealer of considerable experience was of the opinion, in view of the fact of the difficulty of the used car business, that the industry should have a larger discount and the majority of dealers would be satisfied with a small increase of about 5%. He said that in practically every case to-day, except on those cars which are not handled very extensively in Canada and which do not have a very wide distribution, the discount ranges from 17% to 30%, but in most cases it is actually 20% to 25%. Under the present discounts, says this dealer, the dealer who actually clears 10% is doing a great deal better than most. This dealer believes that the manufacturers should bear some portion of the burden of handling used cars, either by increasing the commission or by making an allowance for every sale on which a used car is taken of that particular manufacturer.

However, the majority of the dealers seen are not so sure that an increase in discounts would materially help the situation. They see in an increased discount a greater opportunity for certain dealers to gamble in purchasing used cars, and fear the increase would be handed over to the customer. This would mean not only that the dealer's profits had received no boost but that the used car market would be literally shot to pieces. It is difficult enough to manage the used car end of the business at any time, say these dealers, but with such a situation where a certain class of dealer had greater opportunity or temptation to offer more money for "trade-ins" the effect would be very demoralizing.

## USED CAR IS THE THIEF

It is pretty firmly established in the minds of the dealers interviewed that the used car is the thief who steals the profits. Before the dealers can hope to make the profit they should, it is contended, they must grapple with the used car and mase it.

One dealer said it is an individual problem. "We must buy the cars right," he said, "and buy them at a figure which will enable us to turn them over again at a profit. It seems to me," he continued, "if we could do that, this question of 'no profits' would never arise."

"As I see this question," said another dealer handling a medium priced car, "we have to become better business men and better merchandisers. We must learn to cut our costs. There has been too much guessing in our methods," he maintained, "too much haphazard selling and too vague a policy in dealing in used cars. How many of us have a sales policy?" he asked. "How many of us have a true appreciation of overhead? Do we train our salesmen to sell new cars and buy used cars? Do we turn our used cars over in such a way that our books do not show a loss on the transaction? If we can answer these questions in the affirmative, if we can say that our methods line up to such a standard, then I am sure we need not worry about our profits."

This briefly represents the opinion of a dozen or more dealers selling every class of car. We invite dealers to write to us stating their views on this subject, which is a serious one at the present moment and likely to be such for some time to come.

## A. E. A. CONVENTION WAS BIG SUCCESS

(Continued from page 10)

ents, Borderland Auto Supply Co., El Paso; C. F. Hodgson, Weaver Mfg. Co., Springfield, Ill.; A. D. McMullen, Motor Mercantile Co., Salt Lake City; W. C. Hecker, Curtis Pneumatic Machinery Co., St. Louis; W. L. Moncur, Cutten & Foster, Ltd., Toronto; W. T. Morris, American Chain Co., Bridgeport, Conn.; G. Norman Baughman, G. Norman Baughman Co., Tampa, Fla.

## The New Leaders

The A. E. A. chose its new president from Chicago. He is Nelson H. Oliver,

general sales manager of the Metal Specialties Mfg. Co., whose plant is in the Illinois metropolis. He is a former member of the board of directors and a present member of the committee which directs the merchandising campaign. The vice-president comes from the ranks of the jobbers. He is William E. Wissler, head of the automotive equipment department of the Herring Motor Co. of Des Moines, an automotive concern with a passenger car dealership and other interests. He also is on the merchandising committee. The new chairman of the board of directors is Earl V. Hennecke.



# News Of The Trade

## ALBERTA

**MEDICINE HAT:**—M. Cory, proprietor of the Central Garage, handling automobile accessories and repairs, is remodelling his premises. The capacity of the repair department is being increased and new repair equipment is being added.

H. E. Lawson, who opened the Columbia Ave. Garage a few months ago, has by persistent effort built up a large repair business.

The Dominion Garage at 530 Fifth Street, Medicine Hat, has been acquired by F. E. Beebe, formerly of the Service Garage. Associated with Mr. Beebe as manager will be J. Benson, recently of the civil service department of the Province of Alberta.

**CALGARY:**—W. H. Johnson has purchased the Auto Supply and Repair business from Mrs. R. L. Boyle. Mr. Johnson has remodelled the building and added new oil and gas service at the pump.

Webber's Garage, Calgary, have installed an electric vacuum cleaning system for cleaning the upholstery, rugs, mats, etc., of closed cars, to work in conjunction with their wash-rack department.

The garage business formerly conducted by Hodgson Bros. on 15th Ave. W., Calgary, has been purchased by W. R. McKie.

**EDMONTON:**—John McNeil and Hugh McNeil of the Western Garage, have leased the building formerly occupied by Lines Motors on 102nd St., and will operate hereafter under the name of the Twin City Garage.

## BRITISH COLUMBIA

**NEW WESTMINSTER:**—The Ford business formerly conducted by Ridley-Kennedy Ltd., has been moved to Colum-

bia Street and will be carried on there by the Modern Motor Car Company Ltd.

**VICTORIA:**—G. Salter, formerly of Vancouver, has taken over the Acme Garage on Firdard Street. He will specialize on Ford, Dodge and Chevrolet cars. The new firm will be known as the Central Garage.

H. A. Davie, distributor for McLaughlin-Buick cars in Victoria, with Mrs. Davie, is spending a holiday in California.

## ONTARIO

**COTTAM:**—Mossop's Garage is a new business opened here, dealing in repairs, accessories, oils, etc.

**LONDON:**—Towe and Towe, accessory dealers, owing to increasing business, have found it necessary to enlarge their quarters.

**WINDSOR:**—C. M. Price and C. F. Harris, both of Windsor, have been appointed to the sales staff of the Universal Car Agency, Ford dealers.

**HAMILTON:**—Quality Motor Products, handling a full line of automotive equipment and repair parts, opened here recently at 674 King Street East.

**KINCARDINE:**—The Central Garage, a new business, has been opened by Chas. E. Macpherson. Storage, repairs and a full line of accessories and oils will be handled.

**TORONTO:**—G. E. Gooderham & Co. have moved from 97 Richmond St., W., to the building formerly occupied by See and Smith, Sheppard St. Durant Motors have taken over the Gooderham building.

**PARRY SOUND:**—The garage building formerly owned by Andrew Bovair on River Street, has been purchased by J. M. Reid and J. O. Reid, of Oshawa, who are fitting it up as a general automobile repair and machine shop.

**STRATFORD:**—A. Smith, automobile welding specialist, has moved from the Ford Garage and is now in his new workshop at 215 Nelson Street.

H. J. Gaul has opened a new service garage at 97 Huron St., Stratford.

## SASKATCHEWAN

**REGINA:**—Ross Robson and P. Moyan have taken over the Ryan Garage, which they have remodelled. In future the business will be known as the Modern Garage Ltd. The proprietors will handle repairs, accessories, oils, gasoline, etc.

The Saskatchewan Motor Co. has assumed the distribution, wholesale and retail, of the full Durant line of cars.

**MOOSE JAW:**—J. E. Baimbridge, manager of Moose Jaw Motors, Ford dealers, writes Canadian Automotive Trade that his firm has delivered since April 1st, 160 new cars (35 per cent. of which were closed models) and 145 used cars. November deliveries up to Nov. 22 were one car per day, mostly closed models. Mr. Baimbridge also says collections have been good to date.

## MAKE 1922 REAL AUTOMOTIVE XMAS

(Continued from page 6)

close of each day sees a total of thousands of gifts already selected.

Those dealers interested in getting a share of this highly profitable Christmas business have no time to waste but should start at once getting together material and merchandise for a Christmas window, order some signs and cards printed or lettered and interview their jobbers' salesmen with a view to securing from them all assistance possible in the way of Christmas boxes, wrapping paper, display boards, window trims or anything they may have that will assist in making this an automotive Christmas.

Trim the windows, put up some signs, create a Christmas atmosphere—then Ask 'Em to Buy and let's make 1922 a real Automotive Christmas.

## FOR SALE

### Fuel Oil Storage Tank

10,000 Gals. Capacity

This is a new tank. We have not yet taken delivery of it, and offer it at a very attractive price. The tank will be sold within the coming week, so phone or wire if interested. Apply

MR. Vogan, THE MACLEAN PUBLISHING CO. LIMITED  
143 University Ave., Toronto. Adelaide 5740

## Gasoline Motors, \$50. and up

4 Cylinders      4 Cycle

20 horsepower and up, these motors are taken from high-priced automobiles, and can be used for any purpose where power is required. Hundreds of these motors in use all over Canada are giving satisfaction in motor boats, tractors, cutting boxes, sawing wood, running machinery, etc. We also carry the largest stock in Canada of slightly used parts for motor cars of all kinds.

Satisfaction or refund in full, our motto.

**Shaw's Auto Salvage Part Supply**  
927-31 Dufferin St., Toronto



# CANADIAN AUTOMOTIVE TRADE BUYERS' DIRECTORY

## AUTOMOBILES

Willys-Overland Limited, Toronto.  
McLaughlin Motor Car Co., Ltd., Oshawa,  
Ontario.  
Earl Motors Inc., Jackson, Mich.  
Gray Dort Motors Ltd., Chatham, Ont.

## AUTO ACCESSORIES

Gill Mfg. Co., Chicago, Ill.  
Canadian National Carbon Co., Toronto.  
Cutten & Foster, Toronto.  
Canadian Linderman Co., Woodstock, Ont.  
A. B. Jardine & Co., Ltd., Hespeler, Ont.  
Kemp Metal Auto Wheel Co., Toronto.  
Lamontagne, Ltd., Montreal, Que.  
John Millen & Son, Montreal and Toronto.  
McCord Mfg. Co., Walkerville, Ont.  
Motor Necessities, Ltd., 231 Somerset  
St., Winnipeg.  
Pressure Proof Rings Co., Montreal, Que.  
Penetang Carriage Co., Penetang, Ont.,  
and Toronto.  
Prest-O-Lite Co. of Canada, Ltd., Toronto.  
Asbestos Co., Montreal, Que.  
Shaw Auto Salvage Parts Supply Co.,  
Toronto.  
Thexton Machine Works, 736 Dundas St.  
E., Toronto.  
Toronto Auto Accessories, Ltd., Toronto.

## AUTOMOBILE WHEELS

Kemp Metal Auto Wheel Co., Toronto.  
Hayes Wheel Co., Chatham, Ont.

## AUTOMOBILE TIRES

Premier Tire & Rubber Co., Ltd., Toronto  
and Beamsville, Ont.

## BALING PRESSES

J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## BINDERS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## BELT LACINGS

Flexible Steel Lacing Co., Chicago, Ill.  
and London, Eng.

## BRAKE LINING

Asbestos Co., Montreal, Que.

## BATTERIES

Canadian National Carbon Co., Toronto.  
Prest-O-Lite Co. of Canada, Ltd., Toronto.

## CARRIAGES

Penetang Carriage Co., Penetang, Ont.,  
and Toronto, Ont.

## CREAM SEPARATORS

De Laval Co., Ltd., Peterboro, Ont.  
International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## CRANES (Floor)

A. B. Jardine & Co., Ltd., Hespeler, Ont.

## DAIRY SUPPLIES

De Laval Co., Ltd., Peterboro.  
International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
R. A. Lister Co., (Canada), Ltd., Toronto.

## DUMP BODIES

Dominion Truck Equipment Co., Ltd.,  
Kitchener, Ont.

## ELECTRICAL EQUIPMENT

Canadian National Carbon Co., Toronto.

## ENGINES

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## ENGINE STANDS

A. B. Jardine & Co., Ltd., Hespeler, Ont.

## FEEDERS

J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## FLOOR CRANES

A. B. Jardine & Co., Ltd., Hespeler, Ont.

## GARAGE EQUIPMENT

Cutten & Foster, Toronto.  
Hall Gear & Machine Co., Toronto.  
Independent Pneumatic Tool Co., Mont-  
real.  
A. B. Jardine & Co., Hespeler, Ont.  
John Millen & Son, Montreal and Toronto.

## GRINDERS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## HOISTS

Dominion Truck Equipment Co., Ltd.,  
Kitchener, Ont.

## HOOKS AND HANDLES

Flexible Steel Lacing Co., Chicago, Ill.,  
and London, Eng.

## LAMP GUARDS

Flexible Steel Lacing Co., Chicago, Ill.  
and London, Eng.

## LIGHTING SYSTEMS AND ACCESSORIES

Canadian National Carbon Co., Toronto.

## LUBRICANTS

Imperial Oil Co., Ltd., Toronto.

## MACHINE TOOLS

Butterfield & Co., Rock Island, Que.

## MILKING MACHINES

De Laval Co., Ltd., Peterboro.

## OILS

Imperial Oil Co., Ltd., Toronto.

## PISTON RINGS

The Piston Ring Co., Ltd., Montreal, Que.  
Gill Mfg. Co., Chicago, Ill.  
Lamontagne, Ltd., Montreal, Que.

## POWER MACHINERY

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## PULVERIZERS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## PRESSES

A. B. Jardine & Co., Ltd., Hespeler, Ont.

## ROAD GRADERS

J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## ROCK CRUSHERS

J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## SLEIGHS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## STACKERS

J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## TRACTORS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.  
John Deere Mfg. Co., Ltd., Welland, Ont.

## TRACTOR PLOWS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
Cleveland Tractor Co., Cleveland, Ohio.  
John Deere Mfg. Co., Ltd., Welland, Ont.

## TOOLS

Butterfield & Co., Rock Island, Que.  
Hall Gear & Machine Co., Ltd., Toronto.

## THRESHERS

Advance-Rumely Thresher Co., Inc., Win-  
nipeg, Calgary, Regina, Saskatoon.  
Birdsell Mfg. Co., Toronto and South  
Bend, Ind.  
International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## TIRES

Premier Tire & Rubber Co., Ltd., Tor-  
onto and Beamsville, Ont.

## TWIST DRILLS

Butterfield & Co., Rock Island, Que.

## TRAILERS

Dominion Truck Equipment Co., Ltd.,  
Kitchener, Ont.

## TRUCKS

Dominion Truck & Equipment Co., Ltd.,  
Kitchener, Ont.  
International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.  
J. I. Case Threshing Machine Co., Inc.,  
Racine, Wis.

## TRUNKS

Lamontagne, Ltd., Montreal.

## WAGONS

International Harvester Co., of Canada,  
Ltd., Hamilton, Ont.

## WHEELS

Hayes Wheel Co., Chatham, Ont.  
Kemp Metal Wheel Co., Listowel, Ont.

## WRECKING CRANES

A. B. Jardine & Co., Ltd., Hespeler, Ont.



# Automotive Manufacturers Appreciate the Importance of the Dealer

in the modern scheme of distribution, and it is their appreciation which prompts them to spend millions of dollars every year in National Advertising.

They know just as well as you do the immense importance of rapid turnovers in your business and the direct influence of the rate of turnover to operating expenses and profits.

They know that you and your sales help are required to put less selling effort on products which are nationally advertised to the buyer.

Hence their increasingly keen efforts to sell the car owner or prospective owner on the merits of their product and through the strength of their National Advertising make their product and its quality so well known that confidence is established and the product readily accepted by the customer.

National Advertising by Automotive manufacturers cuts your operating costs, enables you to serve more people, increases your turnover and lessens the amount of capital required to swing your business.

It permits you to put more thought and time into the selection of your stock. Permits you to carefully judge and weigh the possible volume of business the various National Advertising campaigns are bound to create; and to cash in on this by stocking the nationally advertised lines in the Automotive industry.

The best buyers of Cars and Accessories are the better and more prosperous classes in each community throughout Canada.

The purchases of over 95,000 of this important group of Canada's best buyers are strongly influenced by the advertising pages of

**Some of the Automotive  
Manufacturers who are  
helping to speed up  
Dealer turnover with  
National Advertising in**

**MACLEAN'S**  
"CANADA'S NATIONAL MAGAZINE"

General Motors, Limited  
Ford Motor Car Company  
Willys-Overland  
Willys-Knight  
Lincoln Motors  
McLaughlin Motors  
Chevrolet Motors  
Reo Motor Cars  
Commer Trucks  
International Trucks  
Gabriel Snubbers  
Hasslers Shock Absorbers  
H and D Shock Absorbers  
Weed Chains  
Boyce Motometer  
Sunoco Motor Oil  
Exide Batteries  
Prest-O-Lite Batteries  
Gutta Percha Tires  
Goodyear Tires  
Premier Tires  
Royal Oak Tires  
Goodrich Tires  
Lock-Tite Tire Patch  
Ren Rim Wedges  
Schrader Tire Gauges

**The National Advertising  
behind these articles  
is planned to build confidence  
and quicker sales.  
You will be wise to take  
advantage of it.**

**MACLEAN'S**  
"CANADA'S NATIONAL MAGAZINE"

143-153 University Avenue, Toronto



**WIRT JOINS J. I. CASE T. M. CO.**

**PROF. F. A. WIRT**, formerly Professor of Agricultural Engineering, University of Arkansas, has recently joined the Advertising Department of the J. I. Case Threshing Machine Company. He will be engaged in sales promotion and advertising work. He comes to his new work experienced in the use of farm machinery in the field, building and erecting it in the factory and selling it to the dealer and user. He has served as salesman, sales promotion

**PROF. F. A. WIRT.**

specialist and special representative with large implement concerns. Mr. Wirt graduated from the University of Nebraska, B. Sc. in C. E., where he specialized in agricultural engineering. Following his work in the University of Nebraska, he put in some years at the Kansas State College as professor of farm machinery and later in the University of Maryland, where he was head of the Agricultural Engineering Department. He has a wide farm experience and knows the farmers' requirements from first-hand contact with farmers and actual farming experience.

**HAYNES COMPANY ANNOUNCES NEW 1923 BLUE SPORT COUPELET**

**THE** Haynes Automobile Company, Kokemo, Indiana, announce a new 1923 Haynes 55, three-passenger sport coupelet, with complete sport equipment.

The new model carries as standard equipment up-to-date sport accessories and embellishments, including six disc wheels with six cord tires, size 32 x 4½ inches, the two extra wheels being mounted on the sides of the body at the front; polished protection bars at the back of the body; a smart-looking trunk of generous proportions mounted on a new design trunk rack at the rear; a nickel-plated radiator, ornamental radiator and head lamps; Boyce motometer; special Haynes design sun and vision visor; nickel-plated bumpers at front and rear. The roomy, three-passenger seat is upholstered in black long-grain leather, while the remainder of the interior above the belt line is finished in attractive fabric. There is a spacious compartment at the rear of the seat, and a luggage space in the rear deck.

The new 1923 Haynes is finished in blue and has the 121-inch wheel base chassis. Individual, full corner fenders and individual steps of a special design lend distinction to the car. The gasoline gauge is on the instrument board, while a combination tail light and stop light is an added convenience. The body, up to the belt line, is finished in coach blue. Above the belt line it is finished in black.

**SCOBIE ELECTED PRESIDENT EARL MOTORS**

**GEORGE C. SCOBIE**, vice-president and treasurer of Earl Motors, Inc., under the Earl regime, has been elected president to succeed Clarence A. Earl, resigned. Scobie is a Jackson man, having served successfully with Hayes Wheel Co. as auditor, controller, secretary and director, continuing in the latter capacity after joining Earl.

Before becoming identified with the Hayes company, Scobie was a member of the accounting staff of Price, Waterhouse & Co. and has a long financial and

business experience. He became active in the Earl company together with other Jackson men early in the year when the company experienced financial difficulties.

His place as head of the company has created general satisfaction in Jackson where the residents have a large financial interest in the company.

**New Sales Manager**

**W. E. Stalnaker**, formerly distributor for the Premier Motor Car Co. in Chi-

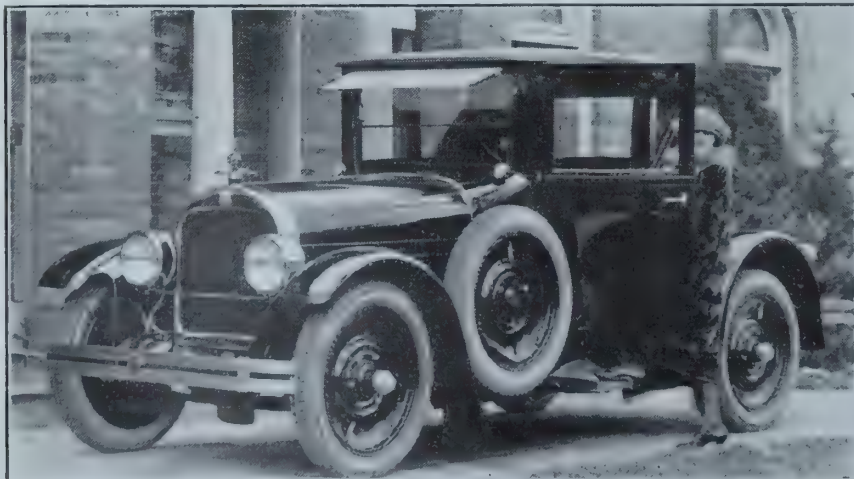
**GEORGE C. SCOBIE.**

cago and vice-president and sales manager of the former Pathfinder Co., Indianapolis, has been named general sales manager of Earl Motors, Inc. He is one of the well known men of the industry, and while a distributor was one of the most successful in the western territory.

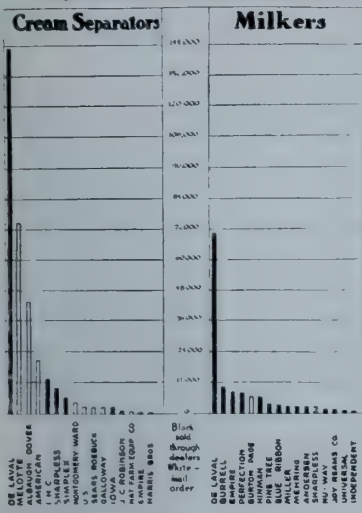
Stalnaker is mapping out plans for 1923 which are designed to give Earl the most extensive representation it has had. Territories both East and West will be carefully mapped out, and many important dealer connections will be signed in the time before and during the New York and Chicago shows. He will attend both shows personally and will renew many acquaintances made during his former connections in the industry.

Several other changes will be made in plant departments, but Scobie has deferred announcement on these pending a thorough consideration of the needs of the company. Though the company has made progress during the year as attested by its improved position at the national shows it is planned by the new executive to bring it much more to the forefront.

With Scobie as president, the company is reported to be in position to secure ample financing at all times as he enjoys a large measure of confidence of the interests backing the company.

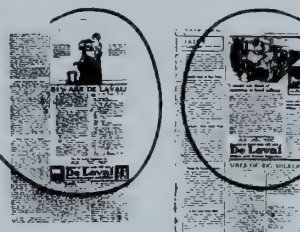
**Haynes 1923 three passenger sport coupelet.**





**51% of the cream separators in the best dairy states are De Lavals.** (Based on investigations by a group of agricultural papers covering these states.)

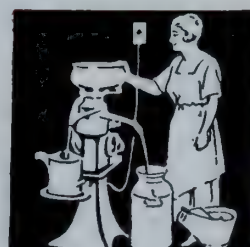
appeared during 1922  
135 Farm papers were used  
from 4 to 26 issues each



**Example – Farm Journal**  
**1,000,000 Circulation-1 DeLaval ad. a month**  
**= 12 • 1,000,000 or 12,000,000 ads in**  
**one paper**  
**135 papers used from 4 to 26 times**

# De Laval

## Milkers and Cream Separators





*The  
Better  
Wheel*



*The  
Wheel of  
Metal*

## It is Indestructible

Each year marks the introduction of new departures which make the automobile safer and more convenient. Engines, tires, starters and the general design and equipment of all cars are different and better to-day. Improvement in automobile wheel construction has probably lagged behind other elements of car design—but improvement has finally come. This improvement is seen in the

## Kemp Metal Auto Wheel

This wheel is made of extra strong steel and is light in weight and has been designed to withstand shocks, and wear and tear, under which any wooden wheel would collapse.

The Kemp Metal Auto Wheel will not break or bend. It has been put to the severest tests an automobile may be subjected to—and it has

never failed to come through without injury. The wheel has all the advantages of a wooden wheel in addition to being indestructible.

Such a wheel as the "Kemp" is destined to become universally popular. Many cars are now equipped! There will be thousands of others, and you should be interested in securing the agency for these wheels!

*Write for Information Today*

## The KEMP METAL AUTO WHEEL CO.

LIMITED

LISTOWEL

ONTARIO















